# THE EFFICIENCY OF USING MNEMONIC TECHNIQUES IN TEACHING A FOREIGN LANGUAGE

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## Abstract

This article examines the possibility of using mnemotechnics as one of pedagogical technologies in foreign language classes (English and Russian). There are several areas of mnemonics: folk, classical, pedagogical, circus, sports, and modern. The author examines techniques related to pedagogical mnemonics.

The study of mnemotechnics as one of the pedagogical technologies is relevant, since, using mnemotechnic methods in the classroom, it is possible to make the process of memorising a large amount of information more effective, reduce the time allocated for explaining educational material and solve the problem of students' interest in learning a foreign language.

The novelty of the study lies in the systematization of methods of mnemonics by language and speech aspects.

The purpose of the article is to select and describe the simplest and most effective mnemotechnic methods used in teaching phonetics, vocabulary, grammar, and speech skills at the initial stage of learning a foreign language.

The most effective methods, according to the author, are those that provide high quality knowledge and develop mental and creative abilities and cognitive activity of students. At the stage of developing phonetic skills, these include: letter, colour and sound associations as well as rhyming words. As for learning words, these are methods based on the students' native language (complete, partial artificial phonetic associations, etymological analysis of words) as well as techniques based on the target language (abstract sound compatibility, separation of words into meaningful parts, word completion, using known information, and rhyming words). Among the methods that contribute to the development of grammatical skills, the following are productive: grouping words according to similar grammatical characteristics, searching for a keyword,

and rhyming words. In the development of speech skills, the use of reference images is of special importance. References may be keywords, visual materials and syntactic models.

Key words: foreign language teaching, mnemonics, mnemotechnic method, efficiency.

## **1. INTRODUCTION**

The twenty first century is the century of high technologies and large amounts of information. A foreign language teacher is faced with the task of replenishing and activating the vocabulary of students; fixing new words by using them in different contexts and situations. Despite a wide range of available tools required for learning new words, experts note some problems associated with memorising and reproducing information (Campayo, 2007).

One of these problems in teaching a foreign language is to help students to overcome the uncertainty that hinders them from starting to talk. The state of fear does not allow even gifted students to reveal their abilities and implement their knowledge in practice. The problem of overcoming the psychological barrier is one of the most important in modern practice of teaching foreign languages. According to Russian and foreign researchers, students' negative states can be eliminated by means of explanations (O'Brien D 1993, Smirnov, Leontyev, Rubinstein, Teplov, 1962, Hagboldt, 1935).

A great role in explaining new material is assigned to the teacher, who must not only uncover the language phenomenon being studied but also arm students with methods for its sensible memorization (Stevens, 1963). The efficiency of explanations is achieved by a small number of brief instructions of practical importance. Long extended explanations are harmful: they take time from speech practice, lead students away from their main goal, i.e. to develop appropriate skills and abilities. In addition, the teacher should approach the learning process creatively, show imagination, find the easiest and most convenient ways to memorise educational material and take into account each student's memory capabilities. The methodical solution to this problem is based on mnemonics and mnemotechnics. Let us consider these concepts in more detail.

# 2. LITERATURE REVIEW

Mnemonics is understood a set of rules and techniques, which ensure the memorisation of necessary information and increase the amount of memory through the formation of associative links (Zyablitseva,2007). Mnemotechnics are ways and methods of implementing mnemonics in practice.

According to the famous psychologist A.N. Leontyev, mnemonics is a powerful pedagogical tool: its internal reserves are unique and diverse. It is accessible and simple, capable of evoking vivid imaginative associations and emotional uplift in students; it turns the learning process from a tedious and boring exercise into an exciting process and reduces the time to study the learning material (Leontyev,1981, Ziganov, Kozarenko,2000). There are several areas of mnemonics: folk, classical, pedagogical, circus, sports, and modern (Kozarenko,2000)). Each of these areas uses a set of techniques aimed at memorising necessary information. The scope of our interests is to consider mnemotechnic methods used in teaching foreign languages.

Methods of mnemonics are very different. For example, the British scientist Jonathan Hancock proposes to train memory by using images, pictures and rhymes, creating personal memorable associations, separating words into meaningful parts, composing phrases to spell, or inventing stories (Hancock, 2011). Russian scientists in their practice use mnemotables, i.e. drawn schemes with certain information (Khokhlova2017, Rebrina, Malushko 2017, Dolzhikova et. al 2017, 2018) as well as the following methods: "chain" (pairwise linking of images into associations); coding numbers into words; sympolisation (for memorising abstract concepts); binding to familiar information; consonance coding, etc. (Ziganov, Kozarenko 2000).

Along with the advantages of mnemonics, its disadvantages are also noted: the system of mnemonical methods is rather artificial, the educational material is assimilated mainly due to the use of illogical methods and the accumulation of words and phrases rather complicates memorisation than makes it easier.

For example, *creak* means *скрип* in Russian. It is consonant with the verb всКРИКнуть. Further we make the following phrase: «Я всКРИКнула от <u>скрипа</u> двери» (Pushkashu 2016:19). Or another example of memorising the names of Greek sages: Солон, Периандр, Хилон, Питтак, Биас, Клеобул. We replace Периандр with Перу, Хилон with Чили, Питтак with пятак, Биас with пиво, Клеобул with клевер and then make the phrase: «Солон стоит левой ногой на карте Перу, а правой на карте Чили, в правой руке

держит медный пятак, а в левой – бутылку пива и смотрит на поле клевера» (Thompson,1987:28). Not every student can invent or even memorise a similar chain of associations, because not everyone has such figurative thinking. Usually, it is peculiar to people of creative professions and those who have a good memory for words. In our opinion, it is possible to solve the problem of memorising educational material through the use of the simplest, most effective, logic-based methods of mnemonics, which will be available to every student.

Methodologists have repeatedly attempted to classify methods of mnemonics. For example, I. Thomson classifies mnemonic techniques into linguistic, spatial, visual, verbal and physical ones (Thompson,1987). A.D. Baddeley identifies the techniques of verbal and visual images (Baddeley,1999), and R. L. Oxford believes that mnemonic means are divided into methods of creating mental connections, using images and sounds, repeating the material learnt, and applying actions (Oxford,1990).

# 3. MNEMOTECHNIC METHODS FOR TEACHING FOREIGN LANGUAGES

The learning process, as is known, involves the development of speech skills when students learn the language aspects: phonetics, vocabulary and grammar (Passov, Kuzovleva,2010). Within the framework of this research we will systematize mnemotechnic methods by language and speech aspects. We propose to consider the most accessible and effective methods of mnemotechnics used in the practice of teaching the English and Russian languages.

# 3.1. Learning phonetics

Learning a foreign language begins with the alphabet, to memorise which, the mnemotechnic method of "alphabetic association" is used. For example, students delve into the phonetic specifics of the English and Russian languages using a system of associative links with the sounds of their native language. By comparison, we can distinguish 11 Russian letters, the graphic form of which is identical to the English letters (A, B, C, E, H, K, M, O, P, T, and X), and six of these letters (A, C, K, M, O, and T) denote the same sounds in the Russian and in English alphabets. For example, the Russian sound [c] is identical to the English [s] in the word *same*. Or the Russian sound [6] corresponds to the English [b] in the word *back*.

To work on the pronunciation of individual sounds in teaching foreign languages, methodologists propose the method of "rhyming words" (Pavlova,2008). Thus, in English, the correct pronunciation of the sound [æ] is practised using tongue twisters, for example: a black cat sat on a mat and ate a fat rat / I have to cram for my exam. Or in Russian, the pronunciation of the letter *N* as the sound [ы] after the hard consonants [ж] and [ш]: «В доме жили лыжи / И котенок рыжий. / Там учили малыши: / С буквой И жи, иш пиши». Repeated pronouncing the same sound helps students to memorise the phonetic features of a foreign language.

Comparing the specific letters of the Russian and English alphabets, one can find the dependence of the normative sound realisation on the articulation specificity and on the positional use of sounds in the word structure. In the Russian language classes, it is proposed to use the "colour association" method. For example, to clarify the articulation specificity of hard and soft syllables based on the compatibility of voiceless and voiced consonants with the vowels  $a/\pi$ , 3/e,  $u/_{bl}$ , e/o, teachers of phonetics use colours: voiced sounds are painted red and voiceless sounds are painted blue. The colour of the vowels a, o, y, bl in hard syllables does not change, i.e. it is left traditionally black, and the vowels e, e, io,  $\pi$  in soft syllables are represented in green. This way of illustrating the peculiarities of articulation evokes necessary students' associations for the use of voiceless/voiced and soft/hard syllables and contributes to their understanding of the Russian language phonetic specifics as well as the formation of stable audiolingual skills (Tungusova, Wan 2005).

The peculiarity of the English language is the lack of an unambiguous correspondence between sounds and letters. The same letter in different positions can be pronounced differently. In order to master the correct pronunciation in the classroom, the "sound association" method is used, which involves lexical units containing vowels that sound similarly, for example: *pink, still, sit, milk* and *nice, bike, pine*. The teacher's work focuses the students' attention not only on the important phonetic characteristics of sounds and syllables in the word structure but also activates various types of memory. Thus, visual memory helps to memory develops word spelling. At the same time, various types of speech activity are closely interrelated and are in constant interaction.

# 3.2 Learning vocabulary

Phonetic material is studied simultaneously with new words. The use of methods of mnemotechnics is most relevant for this aspect of the language, because comfortable conditions are created that simplify the

introduction and activation of new lexical material.

A common native speaker knows thousands of words, of which approximately only 3,000 make up 90% of the daily vocabulary used. Therefore, when working with new lexical material, the teacher should not only select the words necessary for daily communication but also to come up with effective ways to memorise them. Let us consider some of mnemotechnic methods used in English and Russian language classes.

Mnemotechnic methods are dealt with by a number of researchers (Atkinson, Raugh,1975; Podshibyakina1985; Hancock, 2011; Khokhlova,2017); following them, we distinguish:

a) methods based on the students' native language (complete and partial artificial phonetic associations, etymological analysis of words) and b) methods, the explanation of which is based on the language being studied (abstract sound compatibility, natural and artificial separation of a word into meaningful parts, word completion, using known information, rhyming words).

#### Complete phonetic associations

This method involves selecting native-language words consonant with a given foreign word. In English and Russian, there is a large number of words that are approximately similar in pronunciation and meaning (*bar/бар, bank/банк, dessert/∂ecepm, cocktail/коктель, avocado/aeoкa∂o*, etc.). Such words are easily recognized by students. Recognition of already "familiar" words stimulates students to quickly learn the Russian alphabet and memorise the new – Russian – phonetic images of international words, mobilizes students' abilities and inspire confidence in their abilities. In addition, international words are easily divided into thematic groups («B ropoдe»: *банк/bank, mempo/metro, oфuc/office, yниееpcumem/university*; «B кафе»: *caлam, cyn, ŭozypm*, etc.), which allows students, without being distracted by translation, to concentrate on studying grammatical material and drawing up a dialogue and teachers not to overload lessons with new words, especially at the initial stage, but fill the studied grammatical forms and constructions with familiar words, and in this way remove the difficulties of introducing and fixing new grammatical material in sentences and situations.

#### Partial phonetic associations

This method is applicable in the case when the pronunciation of a given word only partially coincides with the corresponding words of the student's native language. When dealing with such words, the teacher focuses on the significant part of the word. For example, in Russian: положить – lay, поставить – stand, сидеть – sit, видеть (вижу) –television. A similar method is used in English classes: small – маленький, screw – крутить, skate – кататься.

#### Artificial phonetic associations

With the help of artificial associations, the teacher selects native-language words that are consonant with the word to be remembered. Memorising required words depends largely on the teacher's creative imagination. As practice shows, the more unexpected and funnier the connection between words is, the higher the efficiency of memorisation will be. To understand the operating principle of this method, let us practice in Russian words. For example, we can remember the word *плащ* if we associate it with the similat English word *splash* / *брызеи*; in the compound word *спа салон*. The first word *спа* is associated with the verb *спать*; *воскресенье* – *was cress in here/посетил мессу в церкви* (pronounce the English version at a quick rate to obtain the required word); *суббота* – *sabotage* (off-day, no one wants to work).

Artificial phonetic associations are also used for memorising long or difficult English words: *outstanding* (выдающийся) – становиться (над всеми); private property (частная собственность) – пропади пропадом; oral (устный) – орать.

## Abbreviations

This method implies composing a word from the first letters of words in a given message:  $\pi a_{\pi b} - JAL - Japanese Airlines$ .

#### Etymological analysis

Learning a foreign language, students obtain a chance to immerse themselves in its culture, to discover many new things. One of the ways to promote a love for learning foreign languages is to explain new words in the form of an interesting story. For example, there is a Russian adverb *быстро*, the phonetic analogue of which in French is *bistro* (*небольшой ресторан, кафе*). The teacher's story about how this word appeared in French is easily and firmly remembered by students, introducing elements of novelty and entertainment, relieving emotional stress and increasing mental performance.

## Abstract sound compatibility in the target language

At later stages of learning, sound associations can also be found in the target language. For example, in Russian: *nopa (it's time) u noka (bye), dopozo (expensive) u dopozoŭ (darling)*. In order to better remember these words, it is necessary to combine the image of the sound association and the image of the semantic meaning of the word. In the first case, why do Russians say: « $\Pi o \kappa a$ »? – Because it's time (*nopa*) to go home. This method is used in English classes as well. For example, teachers propose to remember the word demand *demand (mpe6oeamb)* through *Demon* – an association with a demanding teacher or *demand* and *diamond (бриллиант)* – each diamond requires a rim; *heel (пятка)*, because it is associated with *Achilles*.

## Natural separation of a word into meaningful parts

In each language, there are groups of compound words formed by adding two or more stems. To memorise them, it is enough to separate them into parts and select already familiar ones. Representing material in this way creates an additional visibility and ensures its rapid absorption. For example, in English: *pine/apple, foot/ball, head/ache, light/house*; in Russian: *cam/o/лёm, фom/o/аппарат, яхт/клуб*. The method of separating a word into parts is also applied for learning numbers: *пять/десят, пять/com*.

#### Artificial separation of a word into meaningful parts

For example, separate the Russian word *девяносто* into three parts: *девя/но/сто*; say that this figure wants to be like 100 but cannot (*ninety is not one hundred*). Or the word *семья – семь/я* (seven people and *I*). In English, the word *carpet – car/pet* (на ковре стоит машина и сидит любимое домашнее животное – кошка). (on the carpet there is a car and a favourite pet – a cat)?

#### Word completion

One of the mnemic methods or techniques of memorisation is establishing links by similarity or completing words to be memorised. For example, numerical associations are used for learning the days of the week: the fourth day of the week – *vemыpe/vemsepa*, the fifth day - *пять/пятница*. In practice, the first two syllables are remembered, then the brain can automatically complete them.

#### Use of known information

Currently, we are coming across with more and more English words, especially in the language of advertising. Usually, certain names appear as already popular brands that have proven themselves in the global market, for example: *Head & Shoulders – голова, плечи, Mickey Mouse – мышь, Alpen Gold - золото, Milka – молочная, молоко.* 

#### Rhyming words

The considered method is used not only for to present a new sound, which was mentioned above, but also to introduce a new lexical material. For example, in Russian, when learning the word *ymo*: *what and that – one word*; in English, when learning the numbers: *one, one, one little dog run, two, two, two cats see you, three, three, three birds in the tree...* 

Learning verses helps students to relieve tension in the process of working on a language, consolidate the covered material in a lively and emotional way, develop lexical skills and memory, and replenish their vocabulary.

## 3.3 Learning grammar

In colloquial speech, it is not enough to know only the meaning a word. Words always function in context, in interaction with other words. The functioning of a word in a sentence structure is impossible without knowledge of grammar. At the same time, it should be noted that the system of word combinability and the syntactic-morphological structure are specific for the studied language and do not coincide with those of the student's native language. However, it is possible to distinguish mnemotechnic methods that contribute to the formation of grammatical skills.

#### Grouping words according to similar grammatical characteristics

In Russian, the conjugation of verbs with the interchange of radical consonants in the 1st person singular always presents difficulties for foreign students. The list of such verbs is too long. In order not to overload the memory of students, one should select the most frequent verbs with similar interchanges ( $\kappa y \underline{n} umb - \kappa y \underline{n} \mu \kappa$ ,  $npucomo\underline{s} umb - npucomo\underline{s} \underline{n} \kappa$ ,  $nb\underline{o} umb - n \kappa \underline{o} \underline{n} \mu \kappa$ ), group them by implication and build a logical chain:  $\pi$  люблю мясо, поэтому я куплю мясо и потом я приготовлю мясо.

In English, this method is used for learning irregular verbs. To simplify their memorisation, it is proposed to divide verbs into groups with the same (*cost/cost/cost; put/put/put*) or different forms (*draw/drew/drawn; see/saw/seen*) with different endings (*send/sent/sent; build/built/built*), changes of the root vowel (*begin/began/begun; drink/drank/drunk*), the same first and last forms (*come/came/come; become/became/become*), etc.

## Searching for a keyword

This mnemotechnic method is used for learning the case system of the Russian language. The difficulties of learning case endings are due to the fact that the very concept of declension is absent in English. In traditional practice, case endings are subject to mechanical memorisation, which seems to be ineffective. This problem can be solved by the method of searching for a keyword containing the information required for memorisation.

For example, at the initial stage, students begin to learn the case system with the prepositional case. Most singular masculine, neuter and feminine nouns in the prepositional case take the ending -e and are determined **by** the question  $\partial e$ ? In our case, the interrogative word r<u>de</u> is the keyword, the final vowel of which coincides with the base ending of the prepositional case.

The method of searching for a keyword also helps in studying the singular noun endings in the accusative case. At this stage of memorisation, it is necessary to correlate the masculine ending –a (animated nouns) and the feminine ending –y with the vowels presented in the English version of the name of this case <u>Accusative</u>.

Thanks to the keywords, the educational material will be better preserved in the memory of students, and at the right moment they can always reproduce it.

## Rhyming words

In English, this method is used:

a) for introducing and practising the Present Progressive Tense: One and two and three and four / I am sitting on the floor;

b) for learning irregular verbs: Я в буфете buy-bought-bought / Первоклассный бутерброд / За него я pay-paid-paid / В классе в парту lay-laid-laid.

In Russian, it is used:

a) for learning the cases; for example, the prepositional case: Здравствуй, здравствуй, / Где ты был? / Я не помню, я забыл. / В клубе, в зале, на балете, / Дома, в комнате, буфете? / На вокзале, в пятом зале. / Мы тебя сегодня ждали! (Moskovkin, Silvina, 2004).

b) for learning verbs – exceptions of the second conjugation: *гнать, держать, дышать и слышать, смотреть, видеть, ненавидеть и зависеть и вертеть, и обидеть и терпеть.* 

# 3.4. Learning speech skills

## Using reference images

The process of learning a foreign language involves not only the formation of pronunciation, lexical and grammatical skills, but also the development of speech skills. The use of references as a didactic material takes a special place in the work on developing speech skills. References can be visual materials, keywords and phrases as well as syntactic models.

As visual references in classes, it is possible to use maps, photographs, plans, and mnemotables (schemes) [10] containing information in the form of pictures or keywords. This method is most suitable for students who have a good visual memory. Consider, for example, working with a mnemotable on an English song. The procedure for working with the text is as follows:

1. Read and listen to the song, divide the text into parts (*Chuckles is in the kitchen /Chuckles is in the house/Chuckles is in the bathroom/Looking at a mouse*) (Bykova, Dooley, Pospelova, Evans, 2011).

2. Represent the text of the song graphically, fixing in the table the main objects named in the song in the form of words or pictures. (*kitchen/кухня, house/дом, bathroom/ванная, mouse/мышь*).

3. Retell the text of the song based on the graphic image.

In Russian classes, subject drawings (for example, a plan of a room) or key verbs accompanying visual materials (the verbs *Haxodumbcя* and *Hasbieambcя* + the political world map) are also used for students' statements.

Mastering the techniques of working with reference images facilitates the sequence of reproduction of educational material, speeds up its memorisation, contributes to the development of memory, logical and figurative thinking.

## Reference words and phrases

In both Russian and English, there are words and phrases that express one's own point of view (I think/Я думаю, что...) and arrange the order of the parts of the text (Firstly, ... Secondly, ... /Во-первых, ... Вовторых, ...), using which, it is possible to make an unlimited number of statements.

## Using syntactic models

At the initial stage of learning a foreign language, a monologue is built from a single sentence and is limited thematically. To automate skills, the teacher in the classroom uses the most frequent syntactic structures grouped situationally and grammatically. For example, in personal narratives, students use the model of the prepositional case with the adjective: Я учусь на медицинском факультете. This model can be implemented in other statements: Я учусь на 1-ом курсе. Я живу в 9-ом блоке, на 4-ом этаже.

# 4. METHODOLOGY

In order to determine the effectiveness and reliability of the materials used in the educational process, as well as the methodological techniques for their introduction and practise, experimental testing on vocabulary and grammar in two groups of students. The task of the experiment was to determine the level of their linguistic and communicative competences. The first group studied the Russian language according the traditional method; the second group used experimental materials in classes.

To check the students' knowledge of lexical units the prepositional case system, subtests on vocabulary and grammar were conducted. The purpose of the subtest in speaking was to determine the level formed skills and abilities in the field of dialogues (for example, drawing up a dialogue in a shop, restaurant, on a city street) and monologues (speaking on a picture or on a certain educational topic).

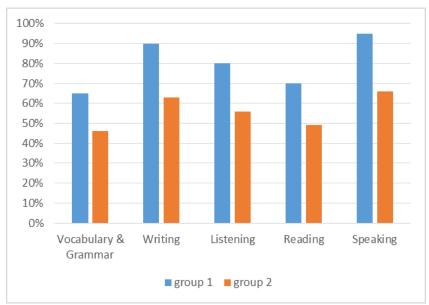


Fig.1 The results of the experimental testing

The results allowed us to compare the levels of students' skills in all subtests. In the second group, where the methods of mnemonics were used in classes, the results turned out to be 25–30% higher than those of the students of the first group who were taught according to the standard method. There were also notable quantitative and qualitative changes in the speech of the students of the second group: they learned to more easily perceive and process new information, keep it in memory and reproduce it in the classroom without

the teacher's help. The final diagnosis of the second group showed an increase in the students' motivation to learn a foreign language. Most of the students who studied according to the traditional method showed weak basic knowledge of grammar and a low level of communicative skills.

The results of the experiment convincingly show the effectiveness of mnemonic methods and suggest the need to revise the traditional introduction of educational material and use methods that increase students' interest in learning Russian.

# 5. CONCLUSION

The use of mnemonic techniques in the classroom ensures the systematic, conscious acquisition of new knowledge and contributes to the rapid understanding of the target language specifics. Transforming educational material into visual images or comparing it with the already acquired knowledge on the principle of associations guarantees its memorisation and arouses interest in the lesson. That is why mnemotechnic methods are effective at all stages of learning a foreign language. The teacher's task is to accelerate the formation of skills for proper memorisation, to make them more effective.

The results of the study can also be used in preparing lectures for teachers of RFL attending advanced training courses in order to familiarize them with new approaches to teaching RFL, so that they will be able to introduce the most effective methods in educational practice and creatively develop the accumulated experience of teaching this discipline.

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