



THE SIGNIFICANCE OF MNEMONIC TECHNOLOGIES IN THE TEACHING OF SPECIALIZED SCIENCES

Sadullayeva Mahfuza Husenovna
Teacher of Chirchik State Pedagogical University

Abstract

This article describes the special importance of effective technologies, including mnemonics in teaching history and focuses on improving the competencies which are specific to specialized subjects to students on the basis of mnemonics. Also, the importance of the principles of historicity, scientificity, systematicity and objectivity in the effective organization of education and strengthening the memory of future history teachers has been shown.

Keywords: mnemonics, eloquence, ultra memory, short memory, memorization, competence, systematicity, universality, transparency, art of memorization, technology, method, dialogue, innovation, tragedy, kinesthetic method

Introduction

Implementation of innovative ideas in the educational system, development of new methods, mechanisms and technologies is becoming one of the urgent tasks. In the condition of modernization of education, the issue of training teachers defined in the national program is of urgent importance, which requires teachers to implement modern approaches to education, pedagogical innovations and effective projects. Implementation of innovative ideas in the educational system, development of new methods, mechanisms and technologies are becoming one of the urgent tasks. In particular, the issue of comprehensive development of students' competence to work with information is in constant attention, and in this, the role of memory in students' work with a large amount of various information is gaining importance. It is known that human memory is complex, and it becomes stronger with the help of a number of technologies and methods. Mnemonic technologies can be included among such technologies. Mnemonics are aids for remembering and memorizing. Associating information, transforming it into simple words or expressing it through pictures is the most important factor for remembering the learned information.

The decline of interest in memory is said to have started about 2,500 years ago when "writing" was created. The famous philosopher Socrates said, "The creation of writing reduces human memory and makes us lazy, because we begin to write down all the





information in our brain on paper and thus forget it." Hopefully, someone managed to quickly put this statement down on paper, otherwise we would not be aware of it now.

Literature Analysis and Methodology

In ancient times, Cicero and the Greek poet Simonoides managed to introduce a number of methods in their work on the practice of strengthening human memory. After Simondes, examples of mnemonics include Hippias (5th century BC) and Aristotle (384-322 BC). The work entitled "Ad Herennium" created in the 12th century is also a very important work related to mnemonics, the author of this work is unknown, and mnemonic methods in the art of oratory are scientifically clearly explained. H. Shperber's work entitled "Mnemotechniken im Fremdsprachenerwerb" is also about mnemonics and the art of speaking, and this work is one of the main guides [1]

In the IV-III centuries BC, mnemonics were a part of the life of the Greeks, so the orators of that time could not do their work without mnemonics. But later it became a history that could not be forgotten. A key concept in covering mnemonics is memory. German researcher H.Sperber cites various theories about mnemonics [2] He explores the ideas of scientists from Plato to modern memory researchers such as John Locke. He notes that John Locke describes memory as "the keeper of our ideas." Today, the researches of German researchers Shiffrin and Atkinson emphasize that mnemonics are of great importance in understanding the educational process. In their research, there are 3 types of memory: ultra-short-term memory, short-term memory, and long-term memory.

When studying with the help of mnemonics both hemispheres of the brain are activated because concrete and abstract (verbal) information is connected to mnemonic "pictures". Accordingly, associations arise. With their help, it is possible to quickly refer to previously saved information. There are different ways to create such associations [3].

By the twelfth century, we again find sources related to mnemonics, the work "Ad Herennium" is a proof of this. The author of this work is unknown, and it is mentioned in the work that mnemonics was taught as a science at that time. It is one of the important subjects in the life of historians and orators. By the 15th century, the use of various associations became widespread. After the 17th century, the popularity of mnemonics began to decline again. Only in the second half of the 20th century it began to surface again. By this time, the scope of mnemonics has expanded even more. Its capabilities began to rise to a more interesting level than before, taking a place in the framework of research on the psychology of learning and studying the structure of the





brain. Today, mnemonics is used in various learning processes, often to remember large and unrelated information and facts. In this developed modern era, Mnemonics is entering our lives as a necessity not only for historians and speakers, but also in the field of English, Russian, Biology and many other sciences, and works on literature. The work "Mnemotechniken im Fremdsprachenerwerb" written by the German scientist H.Sperbern is famous, and in this work he expresses similar thoughts about the history of mnemonics: Mnemotechnics were usually used by politicians in their speeches, actors in their long monologues. According to Aristotle, the orator and tragedy poet Theodectes used mnemonics a lot. After the split of the Roman Empire in the Middle Ages, mnemonics were completely forgotten. It began to appear again in the 8th century, but did not enter the field of study. In the 12th century, the ancient sources of mnemonics began to emerge again. Aristotle's theory of memory was adapted to the ethno-religious field by Albertus Magnus and his student Thomas von Aquinas. By the 15th century, mnemonics began to be used by visualizing pictures, parts of the body, and the alphabet. After the reformation in the 17th century, it once again rose to a higher level and was widely studied by professors. The reason for this was to create easy ways to memorize the Bible [4].

Among foreign scholars, Reverend Brayshaw, A.M. Prokhorova, E.L. Barsukova, L.S. Vygotsky, M.V. Eysensk, M. Anderson, A. Buddli, L.S. Rubinshtein [5], V.V. Vygotsky, V.A. Kozarenko have carried out extensive research.

According to psychologists L.S.Rubinshtein[5], V.V.Vygotsky[6], the left side of the brain is mainly designed for logical thinking, that is, for memorizing numbers, texts, notes, and it has memory potential. The right side of the brain responds to emotions and emotional processes. Taking into account the presence of 5 sensory organs (sight, hearing, cognition, smell and touch), it can be said that 90% of the memory potential is in the right part of the brain. 30 % of its potential belongs to human imagination. Plots, images presented through kinesthetic sensations (film, video, etc.) are stored in memory more than the book read by learners, which can be in the form of various details, episodes. Because of this, watched situations are stored in memory based on automatic imagination. In the memory of students and young people, information is received through the right part of the brain, i.e. imagination. During the school period, all information begins to be received on the basis of the left hemisphere of the brain. The right and left hemispheres of the brain are active in students' perception of new educational material. In this case, the hemispheres of the brain begin their full activity. The full process of the cerebral hemispheres is effective in all lessons and activities organized on the basis of mnemonic technologies [7].





In the theoretical coverage of the topic based on its goals and objectives, methods such as the analysis of scientific and methodical literature on the topic, the study and generalization of the experiences of foreign and local scientists, and the systematization of information were used.

Discussion and Results

Kozerenko emphasizes the specific features of mnemonic technologies: the brain can only remember connections; the process of forming connections is called the "memory process"; the brain is considered an information generator. This is necessarily done in accordance with the process of creation (within storage), further strengthened in the presence of appropriate incentives.

Mnemonics - (in Greek mnemonics - "the art of keeping in memory") - is a set of methods that help memorize memory and increase the memory coefficient by forming artificial associations.

The words "mnemonics" and "mnetechnic" mean the same thing, it is of great importance as a technique of memory enhancement. According to assumptions, the word "mnemonics" was introduced by Pythagoras of Samos (6th century BC). The art of memorization was called "mnemonicon" after the ancient Greek goddess of memory Mnemosyne - the mother of the nine muses [5].

It is more effective to conduct activities through mnemonic technologies for the formation of specific competencies of historical knowledge. In mnemonics, repetition refers to the process of remembering information over and over again. The mechanism of understanding the text and speech data is described by a simple scheme. In mnemonic technologies, principles such as simplicity, transparency, universality and efficiency are of primary importance, and it is easy to learn memorization methods based on the principle of "simplicity". "Transparency" is also necessary to understand the principle of working with memory. "Universality" allows you to remember any information, "efficiency" guarantees complete control over the process of remembering and storing information in the brain.

Education of an intellectually developed, competitive perfect person is the most urgent and important issue in the education system today. Education is a systematic process aimed at providing students with in-depth theoretical knowledge, skills and practical skills, as well as forming their general and professional knowledge, skills and abilities, and developing them [9].

Today, the memory of many students fails to remember historical events, years and historical place names. The reason is that the words are not adapted to "simple memory" or to a multi-order rule that does not mean anything to him. However, this





memory is very bright and imaginative, especially in students with the dominance of the right hemisphere of the brain. According to Pavlova's definition, it is expressed in images called "artistic type" [10].

It is necessary to attach great importance to increasing the level of awareness of historical information in the development of competencies specific to historical knowledge in students. It is when working with historical data that every student requires the introduction of mnemonic methods to students. It is an important concept to understand and analyze the culture, spirituality, secular and religious values of the peoples of the world in a historical perspective. Being able to explain the specific socio-economic features of the historical period and events also helps students to develop historical competence. The analysis of the characteristics of the main events of the period from the earliest times to the present day also has an impact on competence. A learner with historical competence should be able to explain in chronological order the activities of people who played an important role in the history of our country and the world, the main events and people of the studied period, and explain the main events and people of the history of Uzbekistan and the world in a chronological way. It is necessary to be able to correctly use the terms related to the processes that include the past, present, and future for a specific time and period. It is necessary to use terms related to Uzbekistan and world history, think independently about historical events, and put forward hypotheses about the factors of their origin and high results can be achieved if it is done using mnemonic methods.

It is possible to recommend the "Let's remember historical terms and years" methodology for organizing an effective educational process in history. Using this methodology, it is possible to observe the rapid growth of emotional-expressive memory in students based on the mnemonic base, being aware of historical information. This is done using mnemonic techniques from various methods.

It is also possible to use various interactive methods to strengthen students' memory, including "Knowledge Castle", "Knowledge Tree", "Perception Map", "Dialogue", "Continue the Narrative", "Confused Chains". As a result of the use of imitative, speech-building, role-playing and expressive exercises, the student's memory is strengthened. The methodology introduced for the rapid development of historical terms, place names, years and emotional-expressive speech in students based on the mnemonic base is effective.

As it is known, special attention is paid to the effectiveness of the educational process in the scientific researches carried out on the improvement of innovation, integration and monitoring of the quality of education in the educational system. In this direction, the improvement of the theoretical foundations of improving the quality of teaching,





based on the competence approach, the implementation of State educational standards, the introduction of innovative ideas, information and communication technologies into the continuous education system, scientifically based proposals, special attention should be paid to the development of the recommendation system, to the identification of factors affecting the quality of education and training.

The methods of memorization existing in the various systems and schools of the world's memory need to be systematized and refined, and integrated into a single coherent system to meet the three main criteria: simplicity, versatility, and efficiency. Competence of practical understanding of historical processes and formation of skills also consists of a set of skills specific to historical knowledge of the student. It is necessary to use the right mnemonic methods necessary for the formation of historical skills, and it will be clearly shown what kind of knowledge the students will acquire.

As part of the competence of practical understanding of historical processes and the formation of skills, the student should perform a number of tasks:

to be able to explain the specific socio-economic characteristics of historical periods and events;

analysis of specific characteristics of chronological periods;

to be able to provide information about the activities of historical figures and their place in history;

to know the activities of people who have played an important role in the history of our country and the world;

Chronologically covering the main events and personalities of Uzbekistan and world history.

to be able to correctly use terms related to processes including past, present, and future;

To be able to correctly use and remember the terms related to the history of Uzbekistan and the world, think independently about historical events and put forward hypotheses about the factors of their origin;

to have their own views on historical events, to form the ability to explain and analyze events (on the basis of historical sources and media sources), to study and understand the events of Uzbekistan and the countries of the world through sources;

explain the event through a map.

Explaining the events of Uzbekistan and world history, showing countries on the map, using visual aids (pictures, diagrams, tables, layouts, booklets) that create a historical image of historical events, to transmit the knowledge gained as a result of organizing excursions to historical monuments and museums in Uzbekistan, to explain the



knowledge gained as a result of organizing excursions to historical monuments and museums [11].

It is necessary to be able to describe the main events and personalities of the history of Uzbekistan and the world with the help of visual aids [12]. These processes require every student to have a perfect memory and the art of accurate recall. In order to fully fulfill the requirements, it is necessary to systematically shape the activity of the right and left hemispheres of the brain.

Without stimuli, the brain cannot create information, isolation of sensory organs (sensory deprivation) leads to "freezing" of memory and disruption of the entire brain [9]. At the stage of modernization of the process of further development of personnel training, teachers were required to fully master pedagogical innovations and interactive methods, new pedagogical technologies, and use these innovative ideas and forms in the educational process

Summary

At the stage of modernization of the process of further development of personnel training, teachers were required to fully master pedagogical innovations and interactive methods, new pedagogical technologies, and use these innovative ideas and forms in the educational process. In recent years, there is an increasing need for young personnel with historical and scientific potential to strengthen the relations of our republic with neighboring foreign countries in various fields, to introduce the history of our country to the whole world. This requires students to further develop the competencies specific to historical knowledge, to study the history of our homeland and the history of world countries in depth. The mnemonic base serves to solve these problems. For this reason, the issues of developing historical knowledge based on the mnemonic base, introducing pedagogical approaches aimed at further improving the student's scientific outlook, and improving these methods based on the characteristics of the subject are of urgent importance.

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