



NEW METHODS OF MEMORY CONSOLIDATION IN TEACHING BOTANY IN THE HIGHER EDUCATION SYSTEM

Rakhmonov Rashid Rakhimovich

Bukhara State Pedagogical Institute Associate Professor of the
Department of Natural Sciences Bukhara
<https://doi.org/10.5281/zenodo.10320673>

ARTICLE INFO

Qabul qilindi: 01-December 2023 yil
Ma'qullandi: 04- December 2023 yil
Nashr qilindi: 09- December 2023 yil

KEY WORDS

Pedagogy, higher education, biology, botany, student, memory, Panama, Mexico, Japan, Europe, Australia, Crimea, Tropical, Problem.

ABSTRACT

The content of the article aims to explain that by carrying out more activities related to memory exercises, students of pedagogical institutes studying biology are provided with ample opportunities for the training of qualified specialists. In recent years, cases of memory loss have been observed among young people, and the organization of such events has become one of the urgent problems.

The problem of activating students' cognitive activity and increasing the effectiveness of teaching is one of the main problems of biology teaching methodology. Activation of students' cognitive activity means the emergence of a high level of motivation, a conscious need to master knowledge and skills, a high result, and the emergence of behavior in accordance with social norms.

This type of activity does not always occur, it occurs only due to the teacher's appropriate pedagogical influence and the ability to create a favorable pedagogical psychological environment. Effectiveness in teaching biology and creating a favorable social and psychological environment depends on the pedagogical technologies used by the teacher. Therefore, in the teaching of botanical sciences in students, conducting more activities in which memory exercises are carried out will strengthen the knowledge of students.

The things we perceive and perceive do not disappear without a trace, but are remembered to a certain extent, that is, they remain in our memory and we remember them when there is a convenient opportunity or when we need them. Also, our forgiven feelings, thoughts, and actions remain in our memory and will be remembered later. Everyone knows this from their own experience. Our daily experience shows that things we remember are not always remembered, some of them are forgotten. Forgetting is also a memory phenomenon. What is remembered is the material of memory, and what is remembered and recalled is the content of memory. We bring to your attention 3 main types of memory.

1. Sensory memory

Sensory memory helps to remember impressions of information. One of the most common examples of sensory memory is fast-moving lights in the dark: if you've turned on a flasher on the Fourth of July, or if you've watched someone move at night, the light will leave a

trail. The reason for this is "sensory memory", a storehouse of visual memory.

Below are the types of sensor memory.

Also known as visual sensory memory, "iconic memory" involves a very brief image.

"Echoic memory" is also known as auditory sensory memory. This type of sensory memory can last for three to four seconds.

"Tactile memory" involves very short periods of sensory memory. This type of touch memory lasts about two seconds.

2. Short-term memory

Short-term memory is a type of human memory where you can only hold a small amount of information. The duration of information storage with one-time perception is estimated in a few seconds. Short-term memory is also called primary or active. Short-term and long-term memory are opposites, they differ in the time of information storage. The amount of short-term memory is very limited and it holds an average of 7 ± 2 memories. The breadth of short-term memory is unique and continues throughout life. Short-term memory is able to process a lot of information, and redundant material is eliminated.

3. Long-term memory

Long-term memory can store traces of images for a very long time, allowing them to be used later in future activities. There are specific types of this mental process: biological, episodic, associative, reproductive, reconstructive, autobiographical. Also called biological or genetics. Because this is the mechanism of heredity. Humans have such patterns of behavior, which are characteristic of humans in earlier periods of evolution, which are expressed in reflexes and instincts. Episodic consists of pieces of material related to a specific situation. It occurs through the repetition of reproductive information. That is, calling the original view of the saved object. Reconstructive memory helps restore a stimulus sequence in its original form. Autobiographical memory helps a person to remember the events of his life.

"I WILL REMEMBER WELL" event will be organized in order to make the most of their free time from classes for biology students studying in pedagogic universities. The event is organized by a science teacher. In this, the teacher will open the event and a song about nature will be shown to the participants of the event through the electronic board.

Students whose memory is young and who I will remember well are selected for the stage. The number of students should not exceed 15. He will read 15 pieces of information clearly and fluently to 15 students and participants of the event. Depending on the sequence number, each student listens to the information related to him, depending on the sequence number, after reading 15 pieces of information, a short scene will be shown using the electronic board. At the end of the scene, the information read out will be presented to the jury. The jury evaluates the life of the student depending on how he repeats the information he heard. Event 1 click information should be short and simple but interesting botanical information. Conducting the event in small groups .

Do you know?

* Trees with right angle stems grow in the Panamanian Islands. Their annual rings are also rectangular.

* In the southern part of Primoree grows a tree called iron birch or Schmidt's birch. No ax can cut its stem. A bullet cannot penetrate it, its hardness is equal to iron.

* The oldest cypress "Santa Maria" growing in Mexico is 4000-5000 years old, and the circumference of the lower part of the trunk reaches 49 meters. 27 people can hold hands and "hug" his body.

* Wild carrot contains much more aromatic (geranium) essential oil than rose.

* In Japan, along with fresh cut flowers, canned flowers are also sold in jars. After opening the jar, if a little water is sprayed in the sun, the flower in the jar will revive and will be no different from a freshly plucked flower.

* Table roses, petunias and other carnations are among the flowers that can be preserved.

* The flower of the three-leaf clover emits a strong, pleasant fragrance before rain, and loses its fragrance completely before drought.

* Before the rain, in the yellow flower of the acacia, the seeds are pushed aside and a shiny drop of "honey" appears in the middle (in the central part). The smell of honey attracts many bees.

* According to botanists, there are about 400 types of plants on earth that predict the weather.

* As soon as the sun's rays shine and touch it, the gorse leaves its crown leaves and closes its flowers before sunset.

* The Swedish botanist Carl Linnaeus made a botanical (flower) clock using the opening of flowers at different times.

* As soon as the sunlight disappears, violets close their flowers and hang down.

* As soon as the sun goes down, the praying mantis begins to write its crown leaves quickly. In the early morning, it closes its flowers as soon as the sun shines.

* There are about 40 native American weeds in Europe. On the contrary, more than 200 species have crossed over from Europe to America.

* Most plants grow at a rate of 0.005 millimeters per minute, pumpkins grow at 0.1 millimeters per minute.

* The smallest flower on earth is Wolfia flower. In addition, Wolfia blooms very rarely. Some botanists have spent their whole lives trying to see the flower of this plant. This flower is about the size of the tip of a bulb.

* Among plants, the core of the sunflower is the lightest part. Its 1cm³ core weighs 0.028 grams, and 1cm³ plug weighs 0.24 grams.

* Never try to put a lily of the valley in the same container with other flowers, as it releases a toxic substance into the water and kills the other flowers immediately.

* The chrysanthemum is the oldest flower in the world, which is still widely planted today. Information about this is given in the works of ancient eastern philosophers written 2,500 years ago.

* Lube fibers in fibrous plants can easily equal iron in terms of strength, and the tensile strength is 15 times greater than that of metal.

* Taupa palm grows in Panama and Colombia. It lives up to 100 years and produces nuts weighing 10 kg or more each year. Each nut consists of a number of pods, in which there are 6-10 seeds.

* Compass tree - Aleppo pine grows on dry stony-soil lands on the coast of the Mediterranean Sea. Its height reaches 10-15 m. The trunk of the tree is always tilted towards

the south, so you can tell the location of countries on the globe by looking at it.

The information is selected from among those given above. Who among the 15 students cannot remember and tell the information at all, will not pass to the 2nd stage. Stage 2 information will be longer and more complex depending on the game condition. In this case, for example, 10 students on the stage will be read 10 pieces of information, and a song about spring will be shown on the electronic board. 10 more students will be listened to and evaluated. Out of 10 students, who cannot remember and tell all the information, will not pass to the 3rd stage. According to the condition of the game, the information of the 3 stages is composed of longer and more complex terms.

All the participants who reached the 3 stages of the event will be awarded, but the students who took 1-2-3 places will be awarded separately.

In problem-based educational technology, the functions of formation of mental activity methods, introduction to creative activity, and development of logical thinking take the leading place, and the rest of the functions are supposedly subordinate to them. In this context, it is possible to analyze the didactic functions of other technologies.

The biology teacher achieves the intended goal and effectiveness only when he chooses which technology to use on a scientific and methodological basis, taking into account the educational, educational and developmental goals of the subject studied in the lesson and the didactic functions of the pedagogical technology.

Together with the unique characteristics of technologies that enable memory exercises to activate students' cognitive activity and increase educational efficiency, educational, developing, educational, creative, communicative, logical activities in the educational process it also performs functions such as thinking, formation of mental activity methods, analysis of one's own activities, orientation to the profession, teaching to get the goal right, and creation of cooperation.

The success of the higher education process depends on the teacher's scientific-methodical level and high level of pedagogical skills, keeping up with the times, and the ability to activate and manage students' cognitive activities. In the teaching of biology, along with other didactic games, it is appropriate to use games in their proper place and effectively. Game exercises can be modeled on the games that are broadcasted on television and in the press and have become the most interesting activity of the students. These include "Zakovat", "Zinama-zina". In these games, students first test their strength and knowledge, and most of them dream of becoming a participant of these games.

In order to realize these desires and dreams of students, every teacher who is working with the times will prepare the ground for increasing students' interest in learning and activating cognitive activities.

References:

1. Юсупов, Ш. Р., Аскарлова, Р. И., Машарипова, Ш. С., & Машарипова, Х. К. (2019). ЭПИДЕМИОЛОГИЯ ЛЁГЧНОГО ТУБЕРКУЛЕЗА В ХОРЕЗМСКОЙ ОБЛАСТИ. In EUROPEAN RESEARCH: INNOVATION IN SCIENCE, EDUCATION AND TECHNOLOGY (pp. 96-100).
2. Облокулов, А. Р., Нарзиев, И. И., Холов, У. А., Ниязов, Г. Э., & Юсупов, Ш. Р. (2018). Особенности течения кишечного лямблиоза у взрослых. Новый день в медицине, (1), 21.

3. Аскарлова, Р. И., & Юсупов, Ш. Р. (2021). Анализ случаев туберкулеза с ВИЧ-инфекцией у больных в противотуберкулезном диспансере Хорезмской области. *Прцветание науки*, (4 (4)), 43-52.
4. Юсупов, Ш. Р., Ибрагимова, Х. Р., Машарипова, Ш. С., Якубова, У. Б., & Рахимбаев, М. Ш. (2015). Особенности этиологической структуры острых диарейных заболеваний в условиях Южного Приаралья. *Вісник проблем біології і медицини*, (3 (1)), 246-248.
5. Аскарлова, Р. И., & Юсупов, Ш. Р. (2021). АРТ-ТЕРАПИЯ КАК СПОСОБ ЛЕЧЕНИЯ ПСИХИЧЕСКИХ И НЕВРОЛОГИЧЕСКИХ РАССТРОЙСТВ У ДЕТЕЙ БОЛЬНЫХ ТУБЕРКУЛЕЗОМ. *ЖУРНАЛ НЕВРОЛОГИИ И НЕЙРОХИРУРГИЧЕСКИХ ИССЛЕДОВАНИЙ*, (SPECIAL 1).
6. Аскарлова, Р. И., Юсупов, Ш. Р., Хасанова, М. Ф., & Атаджанова, О. Н. (2023). Основные меры профилактики населения Приаралья от туберкулеза для детей и подростков. *Проблемы современной науки и образования-2023 год*, (7), 185.
7. Матякубова, О. У., Машарипова, Ш. С., Ибрахимова, Х. Р., & Нуруллаев, Р. Р. (2022). КЛИНИЧЕСКОЕ ТЕЧЕНИЕ ТУБЕРКУЛЕЗА У БОЛЬНЫХ ГЕПАТИТОМ В. *Новости образования: исследование в XXI веке*, 1(5), 565-568.
8. Юсупов, Ш. Р. (2020). Абдуллаева Дилфуза Кадамовна, Машарипова Шохиста Сабировна, Матякубова Ойша Уриновна Применение пектина в комплексной терапии при острых кишечных инфекциях. *Вестник науки и образования*, (5-2), 83.
9. Аскарлова, Р. И., Юсупов, Ш. Р., & Ибрахимова, Х. Р. (2020). Анализ причин развития туберкулеза у детей и подростков. *Главный редактор–ЖА РИЗАЕВ*, 27.
10. Ergasheva, Y. Y., & Zhuraev, S. Z. (2022). Depressive disorder and suicide risk among those with liver disease and their association with quality of life. *ACADEMICIA: An International Multidisciplinary Research Journal*, 12(5), 810-813.
11. Jurayev, S. J. (2023). RISK FACTORS FOR SUICIDAL BEHAVIOR IN AFFECTIVE DISORDERS IN ADULTS AND ADOLESCENTS. *Open Access Repository*, 4(3), 693-697.
12. Jumanazarovich, J. S. (2023). CLINICAL, PSYCHOSOMATIC DESCRIPTION OF NASOGENIC NEUROPSYCHOPATHOLOGICAL CONDITION IN PATIENTS WITH CERTAIN ONCOLOGICAL DISEASES. *Academia Repository*, 4(11), 69-73.
13. Жураев, Ш. Ж. (2023). Клиническая, Психосоматическая Характеристика Назогенного Нервно-Психопатологического Состояния У Больных Некоторыми Онкологическими Заболеваниями. *Central Asian Journal of Medical and Natural Science*, 4(6), 463-466.
14. Rustamov, U. T., Tilavov, M. T., Istamov, M. B., & Jo'raev Sh, J. (2023). Specific Characteristics And Prevalence of Mental Disorders in Oncological Diseases of The Lung And Gastrointestinal Tract. *Journal of Advanced Zoology*, 44(S4), 141-145.
15. Jumanazarovich, J. S. (2023). Clinical Manifestations of Depression in Older Puberty Adolescents. *EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION*, 3(4), 147-150.
16. Jumanazarovich, J. S. (2023). FEATURES OF SUICIDAL BEHAVIOR IN CHILDREN AND ADOLESCENTS. *BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI*, 3(4), 575-578.
17. Jumanazarovich, J. R. S. (2023). ENDOGEN AFFEKTIV BUZILISHDA SUITSIDNING KLINIK XUSUSIYATLARI ASOSIDA DAVOLASH CHORA-TADBIRLARI. *BOSHQARUV VA ETIKA*

QOIDALARI ONLAYN ILMIY JURNALI, 3(6), 1-6.

18. Жураев, Ш. Ж. (2022). Специфические Особенности Развития И Течения Шизофрении У Больных Женского Пола. Ta'lim Va Rivojlanish Tahlili Onlayn Ilmiy Jurnal, 2(12), 322-326.
19. Садуллаев, С. Е., Машарипова, Ш. С., & Машарипов, С. (2023). КЛИНИКО-ЛАБОРАТОРНЫЕ ОСОБЕННОСТИ ТЕЧЕНИЯ ПНЕВМОНИИ, АССОЦИИРОВАННОЙ С COVID-19, У ДЕТЕЙ РАННЕГО ВОЗРАСТА. Международный журнал образования, социальных и гуманитарных наук. Finland Academic Research Science Publishers, 11(9), 851-856.
20. Сабировна, Ш., & Машарипова, А. И. А. Садуллаев Сирож Эрназарович, и Абдуллаева Дилфуза Кадамовна. 2022.«ТЕЧЕНИЕ КОРОНАВИРУСНОЙ ИНФЕКЦИИ НА ФОНЕ ГЕПАТИТОВ». Новости образования: исследование в XXI веке 1 (5): 573-77. ТЕЧЕНИЕ КОРОНАВИРУСНОЙ ИНФЕКЦИИ НА ФОНЕ ГЕПАТИТОВ». Новости образования.
21. Sadullaev, M. S. S. M. S., & Sh, S. M. D. (2023). THE COURSE OF CORONAVIRUS AGAINST THE BACKGROUND OF CHRONIC HEPATITIS.
22. Masharipov, S., Sadullaev, S. E., & Sh, M. D. (2023). THE COURSE OF CORONAVIRUS AGAINST THE BACKGROUND OF CHRONIC HEPATITIS. Scientific Impulse, 2(15), 65-70.
23. Ibraximova, H. R., & Sadullayev, S. E. (2023). AHOLI ORASIDA O 'TKIR ICHAK KASALLIKLARINING TARQALISHI. Новости образования: исследование в XXI веке, 2(15), 115-119.
24. Artikov, I. A., Sadullaev, S. E., Ibrakhimova, H. R., & Abdullayeva, D. K. (2023). RELEVANCE OF VIRAL HEPATITIS EPIDEMIOLOGY. IMRAS, 6(7), 316-322.
25. Ibrakhimova, H. R., Matyakubova, O. U., Sadullaev, S. E., & Abdullayeva, D. K. (2023). HELMINTISES IN CHILDREN AMONG THE POPULATION IN UZBEKISTAN. IMRAS, 6(7), 323-327.
26. Ibrakhimova, H. R., Sadullaev, S. E., & Nurllayev, R. R. (2023). SPREAD OF MYOCARDIAL INFARCTION AMONG THE POPULATION OF THE KHOREZM REGION. IMRAS, 6(7), 328-332.
27. Nurullayev, R. R., & Sadullayev, S. E. (2023). DIAREYALI KASALLIKLARNING EPIDYEMIOLOGIK XUSUSIYATLARI. World of Science, 6(9), 64-67.
28. Tuychiev, L. N., Khudaykulova, G. K., Eraliev, U. E., Djuraeva, N. K., & Sadullaev, S. E. (2023). A STUDY OF THE FACTORS AFFECTING THE EFFECTIVENESS OF COVID-19 REHABILITATION.
29. Машарипова, Ш. С., Артиков, И. А., Садуллаев, С. Э., & Абдуллаева, Д. К. (2022). ТЕЧЕНИЕ КОРОНАВИРУСНОЙ ИНФЕКЦИИ НА ФОНЕ ГЕПАТИТОВ. Новости образования: исследование в XXI веке, 1(5), 573-577.
30. Ералиев, У. Э., & Садуллаев, С. Э. (2020). Molecular genetic characteristics of rotavirus infection in children. Молодой ученый, (38), 46-48.
31. Kodirovna, R. D. (2023). The Effects of Subchorionic Hematoma on Pregnancy Outcome in Patients with Threatened Abortion. Best Journal of Innovation in Science, Research and Development, 2(10), 121-124.
32. Rozikova, D. K. (2023, November). " INFLUENCE OF IRON-DEFICIENCY ANEMIA ON THE COURSE OF PREGNANCY COMPLICATED BY EMBRYOTROPHOBLASTIC INSUFFICIENCY. In Международная конференция академических наук (Vol. 2, No. 11, pp. 20-22).