EXPLANATION ON THE BASIS OF MAPPING THE SECRETION GLANDS AND THE THYROID GLAND IN 8TH CLASS BIOLOGY LESSONS

Imomova M.
UZPITI 1st stage basic doctoral student
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Abstract. *Nowadays, in the course of education, it is necessary to equip all subject teachers with new pedagogical technologies and interactive methods and continuously improve their skills in applying the acquired knowledge in educational activities. Fundamental reform of education and introduction of advanced pedagogical technologies in the national personnel training program; It is shown that it depends on "advanced pedagogical technologies of education, creation of modern teaching-methodical complexes and didactic support of the educational process".*

Keywords: *thyroid gland, internal, external, mixed, nerve fibers, mapping, gland, harmonic, secretion, cretinism, endemic goiter, Bazedov's disease, thyrotoxicosis, interactive methods, educational process.*

Introduction. Thyroid gland It is an internal secretion gland of humans and animals, its development begins in the period of pregnancy, and when the child reaches 1 year, the weight of the thyroid gland is 1-2 g. In the process of growth, the gland increases to 15-20 g. Thyroid embryonic sac from eptelium develops. Thyroid gland human embryo complete in the 8-9 months of development form and secrete hormones starts , he is playing, hiccup uncles in the field located: 2 circuits and from the neck consists of Q al bloody gland one couple high and one couple bottom arteries blood with provides, sympathetic and parasympathetic nerve fibers innervate. It is in the body substance and energy metabolism in management participation iodine hormone thyroxine (T_4), triiodothyronine (T,) and thyrocalcitonin work releases Thyroid function central nervous system, activity and the pituitary gland manages

Although Galen first gave information about the thyroid gland to world scientists, Vesalius recorded more detailed information about its anatomical structure. Due to the gland's resemblance to a shield, it was named "thyroid gland". Assumptions about the role and importance of endocrine glands belong to King, who showed a special accumulation of iodine in this gland.

The biological importance of the thyroid gland for the human body became clear after the second half of the last century. It has been known for centuries that Uzbekistan is an endemic goitre, but the study of thyroid gland diseases, the development of its treatment, prevention and surgery began in the middle of the 20th century. Its development was carried out together with the researchers of our country: Yo.Kh.Torakulov, S.A.Masumov and a number of scientists, and a number of measures were developed.

The thyroid gland is located at the front of the neck, in the area of the I-IV tracheal rings of the ring-shaped glands, and consists of two lobes and the cervical part that connects them. The weight of the gland in an adult normally reaches ≈ 25-30 grams, and in the conditions of Uzbekistan, it is somewhat enlarged, especially in endemic foci, it can reach ≈ 40-50 grams. The

gland is covered by the fourth fascia of the neck and is located between the inner (thin) and outer (thick) leaflets, between which the arteries and blood vessels pass.

Symptoms: neck movement is somewhat limited in patients, especially noticeable when buttoning the collar or moving up and down, right and left, dry cough, hoarseness, difficulty breathing. The trachea and larynx are damaged, and the wall of the trachea is thinned due to continuous pressure of the throat. Disturbance of breathing can be noted when patients feel heaviness in the head when the body is tilted, patients have dilated neck veins, and a typical "jellyfish head" image in the area of the upper part of the chest wall.

Today, in the teaching of biology in secondary schools, especially in the 8th grade biology classes, explaining the secretory glands and the thyroid gland on the basis of mapping causes some complications. For this reason, it is recommended to use various interactive methods to make the teaching processes high-quality and understandable. Because interactive methods, according to their essence, ensure a certain level of efficiency in the implementation of educational or educational goals, but each of them has different opportunities to ensure productivity in the educational or educational process. Therefore, it is appropriate for teachers (pedagogues) to pay attention to the studied topic, problem or problem that needs to be solved when choosing an interactive method. In addition, the effectiveness of interactive methods will increase if the age, psychological characteristics, level of worldview, and life experiences of the learners (pupils, students) are taken into account when using them. This requires teachers (pedagogues) to have professional skills, competence, knowledge, sensitivity and intuition. Teachers (pedagogues) operating at various levels of the republic's continuous education system are required to familiarize themselves with the essence, characteristics, conditions of use of each interactive method, and to be able to correctly assess its practical significance.

CRITERIA FOR CHOOSING EDUCATIONAL METHODS

1. According to the purpose of education
2. According to the number and capabilities of the learner
3. Education according to the duration
4. According to material and technical conditions
5. Education of the giver according to the number of people

In the process of teaching biology, it is inevitable that the teacher will face some problems.

1. The problem of full involvement of all students in the lesson process, because students can fully participate in the lesson, but no one can fully guarantee that all students can understand in the lesson, this is where the teacher's use of pedagogical technologies in the lesson is of primary importance.

2. In the lesson, the student may seem to understand and answer the teacher's question, but the ability to understand and imagine some biological processes, and to what extent he is able to use this knowledge during his life, remains abstract even for the teacher. In solving such a problem, the importance of extracurricular activities, group exercises, problems and examples is considered to be of great importance.

I would like to present a topic from 8th grade biology interactively and adapt to the mapping of the explanation of the new topic that I propose.

TECHNOLOGICAL MAP OF THE LESSON

Topic: Secretory glands, thyroid gland

Lesson time: 45 minutes

Type of lesson: Lecture

Lesson plan:

1. What are secretory glands?
2. Secretory glands and their types, why they are named so.
3. Thyroid gland and its functions.

The educational purpose of the lesson is to acquire knowledge about the subject

The educational purpose of the lesson is to understand the role of substances secreted by glands in human life.

of the lesson r developer purpose - Health has been attention development.

1. Organizational part: 5 minutes of preparation, cleanliness
2. Motivation (repeating the previous lesson): 10 minutes

Method: Academic discussion

The topic covered is the humoral and nervous control of the body's functions, and during the repetition of the information on this topic, the students in the class are divided into 2 groups, each of them is given a task related to the situation, for example, "Teacher-student dialogue".

The first group analyzes the communication (the topic) negatively, "prosecutors".

The second group explains the positive aspects of the situation (the subject covered).

In order to discuss a situational task role-play, students must have sufficient knowledge of the topic.

3. The main part (New topic description): Explaining the topic in the form of a map in 20 minutes.

Secretory glands .

1. External
2. Internal
3. Mix

Types of secretory glands

1. intestinal wall	1. thyroid gland	1. pancreas
2. stomach wall	2. pituitary gland	2. gonads
3.milk	3.epiphysis	
4.fat	4.adrenal	
5. tears	5. salivary gland	
6. saliva		
a. listened		
b. sublingual		
s. under the jaw		

Types of gumaral (Latin gumar-liquid).

1. blood
2. lymph
3. tissue fluid
4. a chemical produced by the glands (hormone)

Thyroid gland

1. the mass is 1 gramms for a baby, 10 g for a 5-10 year-old child, 25-30 g for an adult
2. the largest of the internal glands
3. this gland consists of a left and a right lobe

4. located in the front part of the neck

5. produces thyroxine hormone

Effects of thyroxine hormone

1. ensures normal metabolism

2. the work of the heart is controlled by humoral

3. ensures the growth and development of children

4. increases nerve impulses

Diseases of decreased function of the thyroid gland

1. hypothyroidism

2. myxedema

3. cretinism

4. endemic goiter

Diseases of increased thyroid function

1. Bazedov's disease

2. thyrotoxicosis

After the new topic is explained by the teacher, 20 minutes will be allocated for everyone to read the symptoms of diseases together.

4. Communication: «Test» method. The books are closed on the table, a test on a new topic is distributed, and the answers to the test are marked in the notebook accordingly.

1. Show the secretory glands and their properties in pairs:

A-internal, B-external, D-mixed: 1st secret is released into the organ cavity and blood, 2nd secret is released into the blood, 3rd secret is released into the organ cavity or the skin surface.

2. Write in pairs the diseases related to the thyroid hormone thyroxine along with their causes:

A-cretinism, B-myxedema, D-endemic goiter, E-Bazedov’s disease, F-thyrotoxicosis; 1 when there is not enough thyroxine at an older age, 2 when there is not enough iodine in the water, 3 when the function of the thyroid gland is slightly increased, 4 when the thyroxine hormone is overproduced, 5 when there is not enough thyroxine at a young age.

3. Write pairs of diseases related to thyroid gland activity with their corresponding symptoms:

A-cretinism, B-myxedema, D-endemic goiter, E-Bazedov’s disease, F-thyrotoxicosis; 1 metabolism slows down, nervous system excitability decreases, eyelids swell, 2 children's growth, mental and physical development slows down, 3 quick anger, insomnia, loss of appetite, sweating appear, 4 glands enlarge, neck swelling occurs, 5 eyes are unnaturally narrowed. will be

4. Write the diseases in pairs along with their treatment methods:

A-cretinism, myxedema, D-endemic goiter, E-Bazedov’s disease, F-thyrotoxicosis; 1 table salt is treated with iodine, 2 sometimes a part of the gland is removed, 3 drugs that increase gland activity are given, 4 drugs that reduce gland activity are given.

Test during the lesson, the teacher will find out for himself how much he has mastered the new topic, which part of the lesson needs motivation (repetition of the previous lesson). It uses a method that can provide more information based on the answers it receives from students.

5. Final part: 5 minutes **Evaluation principles**

Based on learning objectives

Authenticity

Unaffected

Reliability

Let’s be comfortable

Due to the small number of tests, verification will not be a problem. After all the students finish the test, the teacher writes the answers to the test on the board, the students exchange notebooks with their partners and check each other with the answers given by the teacher on the board. Homework is assigned to each student by the teacher from pre-prepared thematic tests. It is about the topic that the students decide on their own.

Conclusions and recommendations. The above data show that synthetic analogues of thyroid hormones can serve as a basis for the use of chemotherapy against tuberculosis. In particular, the students who participated in the class will have sufficient knowledge, and the information on the topic will be shown to the students in the form of a slide, presentation or handout prepared in this way. Each school will do this at its own discretion. At the moment, it is not possible to study in the cabinet system in public schools of our republic, so handouts will also give a good result. Color pens should be used to copy the information into notebooks, this will increase the memorization. If the school has the opportunity to use information in the form of videos, there are video lessons for each subject, even 3-4 minutes of use of them will keep the information on the subject in a more perfect state in the minds of students.

REFERENCES

1. Decree of the President of the Republic of Uzbekistan dated October 8, 2019 “On approval of the concept of development of the higher education system of the Republic of Uzbekistan until 2030” No. PF-5847 // National database of legal documents, 09.10.2019. No. 06/19/5847/3887
2. A.Khutorskoy Klyuchevye kompetentsii. Technology of construction // Narodnoe education 2003, No. 5.55-61-p
3. O.U.Avlaev, S.N.Jo’raeva, S.P.Mirzaeva “Educational methods” instructional manual, “Navroz” publishing house, Tashkent - 2017.
4. B.E.Turaev, H.Isaev, G.O.Akbarova//Modern concept of natural sciences [text]//study guide -T.: “Barkamol fayz media”, 2018. 5. Tolipova Jamila Olimjonovna diss.: “Theory and practice of raising the level of scientific-methodological training of a biology teacher” in Manuscript Law UDK 57: 371-3 Tashkent - 2006 38-b
5. Sh.A.Dadaev Methodological recommendations for practical work in hospital surgery SamPI for students of the 1st year. 1994.1- P roof. 187
6. V.S.Poded. Savelev 50 lectures po surgery. Moscow. 2004
7. B.A.Abduhakimov Effects of anti-tuberculosis treatment on the functional status of the thyroid gland. Journal of cardiorespiratory research. 2020
8. Abduhakimov BA Peculiarities of the course of pulmonary tuberculosis in children in combination with clay invasion. Journal of cardiorespiratory research. 2021, vol. 2, issue 1,
9. Lopukhin Yu.M., Savelev V.S. Surgery. Management for doctors and students. Perevod s angliyskogo, dopolnennyy. M., 1998
10. Gostishchev V.K. Obshchaya hirurgiya: Uchebnoe posobie dlya med. vuzov - M.: GEOTAR - Media, 2006-832p.

11. Chirurgicheskie disease (Pod ed. V.S. Saveleva, A.I. Kirienko, ucheb. C CD v 2-x tomax, - M., GEOTAR Media, 2006, -t 1-603 p.)
12. Chirurgicheskie diseases Pod ed. tomax, - M., GEOTAR Media, 2006
13. surgery: national A.I. Kirienko.- M. GEOTAR-Media, 2008.t.1.-864p.
14. http://www.consilium-medicum.com/media/refer
15. http://www.mediasphere.aha.ru
16. http://www.ziyonet.uz
17. http://telim.uz
18. http:// pedagog.uz