# THE IMPORTANCE OF USING INNOVATION AND PEDAGOGICAL TECHNOLOGIES IN TEACHING THE UZBEK LANGUAGE

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**Abstract**: In this article, modern, innovative, interdisciplinary methods and various pedagogical technologies aimed at improving the quality of education, which are currently used in the teaching of philology or other subjects, are mentioned.

**Keywords**: interactive, pedagogical, innovative, ORES technology, method, individual, thinking, reinforcing, logical.

A.I. Prigogine understands innovation as purposeful changes that introduce a new, relatively stable element to a specific social unit - organization, population, society, group. This is an innovator's activity.

Innovative technologies are the introduction of innovations and changes to the pedagogical process and teacher and student activities, and mainly interactive methods are fully used in its implementation.

Interactive methods are the so-called collective thinking, that is, the methods of pedagogical influence are a component of the educational content. The uniqueness of these methods is that they are implemented only through the joint activity of pedagogues and students.

Such a process of pedagogical cooperation has its own characteristics, which include:

- To force the student not to be indifferent during the lesson, to think independently, create and search;

- Ensuring that students are constantly interested in knowledge during the educational process;

- The student should strengthen the student's interest in knowledge by independently approaching each issue creatively;

- Organization of always cooperative activities of the teacher and the student.

Researchers (AL. Prigozhin, B.V. Sazonov, V.S. Tolstoy, A.G. Kruglikov, A.S. Axiezer, N.P. Stepanov, etc.) distinguish two approaches to studying the components of innovation processes: the individual microlevel of innovation and the microlevel of the interaction of individually introduced innovations.

In the first approach, some new idea introduced to life is highlighted. In the second approach, the interaction of new ones introduced separately, their unity, competition and, as a result, the replacement of one by another. Scientists distinguish the concept

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of periodicity of life when analyzing the microstructure of the innovation process. This concept stems from the fact that innovation is a measurable process.

The innovative technology and methods used in the education system are of great importance in helping the students to achieve high levels of knowledge and to have their own personal and independent views. Each teacher should carefully study and research every element of the innovative pedagogical technologies used in the lesson before starting the lesson.

Currently, the main pedagogical technologies are empirical, cognitive, heuristic, creative, inversion, adaptive, inclusive and other technologies. It depends on the skill of the teacher to be able to choose these technologies during the lesson.

ORES technology is used to solve controversial issues, conduct debates or at the end of a training seminar (in order to find out the opinions of students about the training seminar) or after studying a section based on the curriculum can be used because this technology allows students to defend their opinion, think independently and freely, express their opinion to others in a reasonable way, openly argue, and at the same time, the knowledge acquired by students in the educational process it teaches students to analyze, to assess their level of mastery, and to develop a culture of debate.

This technology helps students to clearly and succinctly express their opinions on a simple piece of paper that is distributed, and to state supporting or counter-arguments.

Transfer technology. This technology is carried out in several stages:

## Step 1:

- the teacher, together with the students, determines the topic of the debate or the problem to be discussed or the studied section;

- the teacher informs the students that first each student will work individually, then work in small groups, and finally, at the end of the lesson, they will work as a team;

- during the lesson, it is mentioned that every student can fully express his opinion freely.

### Step 2:

-papers with 4 stages of ORES technology are distributed to each student:

O (express your opinion);

R (give reasons for your statement of opinion);

E (give an example (evidence) to prove your stated reason);

S (summarize your opinion).

-Each student fills in the 4 stages of the ORES on the distributed paper individually, expressing their thoughts in writing.

### Step 3:

-after each student has completed their paper, the teacher asks them to break into small groups or he/she divides the students into small groups using different grouping methods sends; - the teacher distributes to each group papers in the format of 4 stages of ORES technology;

- the teacher offers small groups to summarize the ideas and arguments in the papers written by each of them in a large format and write them in 4 stages.

#### Step 4:

- in small groups, each student first introduces the group members with his/her thoughts on each stage. After studying all the opinions of the group members, the members of the small group begin to summarize them;

-group members summarize the 4 stages of ORES and prepare for its defense;

- each student can defend and prove his/her opinion during the summarization of ideas.

#### Step 5:

- small groups defend the generalized opinions: the representative of the group reads each step separately (without commenting as much as possible). It can prove certain sections, that is, tell why the group came to this opinion.

### Step 6:

- the teacher concludes the lesson, expresses his reaction to the expressed opinions;

- turns to students with the following questions:

a) What did you learn and what did you learn from this lesson?

b) What was the effect of this lesson?

c) What qualities does this topic nurture in students, what does it shape, what qualities does it develop?

EXPLANATION: The above questions can be asked by the teacher to the students based on the content and purpose of each lesson.

For example:

Topic: The participle is the meaningful center of the sentence.

O (express your opinion);

The main part that forms the meaningful center of the sentence and unites other parts around it, expressing the meanings of affirmative-negative, person-number, tense and mood is called participle.

R (Give a reason for your opinion statement): Since the clause forms the meaningful center of the sentence, it is possible to form a sentence through the clause without the participation of other clauses.

E (Give an example explaining (proving) the stated reason): Coming. We will go.

S (Summarize your idea): The above word forms a sentence. If there is no participle in the sentence, the sentence has no meaning. The words "we are coming" and "we are going" are the meaningful center of the sentence. The word coming represents the present tense. "We will go" is expressed in the future tense. In conclusion, it can be noted that in the process of teaching students are treated as

individuals, the use of various pedagogical technologies and modern methods directs them to independent, free thinking, research, creative approach to every issue, most importantly, strengthens their interest in studying and science.

Achieving such a result in practice requires the use of innovative and information technologies in the educational process. They are very different. Current modern methods or technological lessons that help to increase the effectiveness of teaching help to form logical, intellectual, positive, critical, independent thinking in students, educate positive qualities and develop their abilities.

### REFERENCES

- Shaikhislamov N. (2021). Issues of speech development of students in mother language and literature lessons. The 21st Century Skills for Professional Activity, (6), pp. 160-162. (*in Uzbek*)
- 2. Kasimova K., Matchonov S. "Methodology of mother tongue teaching". (in Uzbek)
- 3. Mahmudov N. Culture of teacher's speech. Tashkent-2009. (in Uzbek)
- 4. Yoldoshev J. Advanced pedagogical technology. Tashkent, Science-2004. (*in Uzbek*)
- 5. Hamidov A. New pedagogical technologies. Tashkent-2004. (in Uzbek)
- 6. G.N. Narimonova. Psycholinguistics as a tool for in-depth study of speech and language. *Science and Education*. Volume 3, Issue 2, pp.546-550 (2022)
- 7. G.N. Narimonova. External laws of language development. Scientific bulletin of gifted students of NamSU. Volume 1, Issue 1, pp. 215-218 (2023)(*in Russian*)
- 8. Gulnoza Narimonova. Key trends in the development of the Russian literary language. Eurasian Journal of Academic Research. Volume 2, Issue 6, pp. 544-546 (2022) (*in Russian*)
- 9. Gulnoza Narimonova. Changes in the Russian Language in the Modern Period and Language Policy. Texas Journal of Philology, Culture and History. Volume 25, pp.40-43 (2023).
- Gulnoza Narimonova. Modern Information Technologies in Teaching the Russian Language. Journal of Pedagogical Inventions and Practices. Volume 27, pp.3-5 (2023)
- S. Abdullayeva, G. Narimonova. External laws of language development. Proceedings of International Educators Conference. Volume 2, Issue 3, pp.59-62 (2023)
- 12. R.G. Rakhimov. Clean the cotton from small impurities and establish optimal parameters. The Peerian Journal. Vol.17, pp.57-63 (2023).
- 13. F.G. Uzoqov, R.G. Rakhimov. Determining the hardness coefficient of the sewingknitting machine needle. DGU 23281. 15.03.2023
- F.G. Uzoqov, R.G. Rakhimov. Movement in a vibrating cotton seed sorter. DGU 22810. 03.03.2023

- 15. F.G. Uzoqov, R.G. Rakhimov. Calculation of cutting modes by milling. DGU 22812. 03.03.2023
- F.G. Uzoqov, R.G. Rakhimov. The program "Creation of an online platform of food sales". DGU 22388. 22.02.2023
- 17. N.D. Nuritdinov, M.N. O'rmonov, R.G. Rahimov. Creating special neural network layers using the Spatial Transformer Network model of MatLAB software and using spatial transformation. DGU 19882. 03.12.2023
- 18. F.G. Uzoqov, R.G. Rakhimov, S.Sh. Ro'zimatov. Online monitoring of education through software. DGU 18782. 22.10.2022
- 19. F.G. Uzoqov, R.G. Rakhimov. Electronic textbook on "Mechanical engineering technology". DGU 14725. 24.02.2022
- 20. F.G. Uzoqov, R.G. Rakhimov. "Calculation of gear geometry with cylindrical evolutionary transmission" program. DGU 14192. 14.01.2022
- 21. R.G. Rakhimov. On the advantages of innovative and pedagogical approaches in the educational system. Scientific Bulletin of NamSU. Spesial issue. 2020 (*in Uzbek*)
- R.G. Rakhimov. The advantages of innovative and pedagogical approaches in the education system. Scientific-technical journal of NamIET. Vol.5, Iss.3, pp.292-296. 2020
- U.I. Erkaboev, G. Gulyamov, J.I. Mirzaev, R.G. Rakhimov, N.A. Sayidov, Calculation of the Fermi–Dirac Function Distribution in Two-Dimensional Semiconductor Materials at High Temperatures and Weak Magnetic Fields, Nano. 16(9), Article No 2150102 (2021)
- 24. G. Gulyamov, U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, Determination of the dependence of the two-dimensional combined density of states on external factors in quantum-dimensional heterostructures, Modern Physics Letters B, **37**(10), Article No 2350015 (2023)
- 25. G. Gulyamov, U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, On Temperature Dependence of Longitudinal Electrical Conductivity Oscillations in Narrow-gap Electronic Semiconductors, Journal of Nano- and Electronic Physics, 12(3), Article No 03012 (2020)
- 26. U.I. Erkaboev, U.M. Negmatov, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, Influence of a quantizing magnetic field on the Fermi energy oscillations in twodimensional semiconductors, International Journal of Applied Science and Engineering, 19(2), Article No 2021123 (2022)
- U. Erkaboev, R. Rakhimov, J. Mirzaev, N. Sayidov, U. Negmatov, M. Abduxalimov, Calculation of oscillations in the density of energy states in heterostructural materials with quantum wells, AIP Conference Proceedings, 2789(1), Article No 040055 (2023)

- 28. U. Erkaboev, R. Rakhimov, J. Mirzaev, N. Sayidov, U. Negmatov, A. Mashrapov, Determination of the band gap of heterostructural materials with quantum wells at strong magnetic field and high temperature, AIP Conference Proceedings, 2789(1), Article No 040056 (2023)
- 29. U. Erkaboev, R. Rakhimov, J. Mirzaev, U. Negmatov, N. Sayidov, Influence of the two-dimensional density of states on the temperature dependence of the electrical conductivity oscillations in heterostructures with quantum wells, International Journal of Modern Physics B. (2023). <a href="https://doi.org/10.1142/S0217979224501856">https://doi.org/10.1142/S0217979224501856</a>
- 30. U.I. Erkaboev, R.G. Rakhimov, Determination of the Dependence of Transverse Electrical Conductivity and Magnetoresistance Oscillations on Temperature in Heterostructures Based on Quantum Wells, e-Journal of Surface Science and Nanotechnology, (2023). <u>https://doi.org/10.1380/ejssnt.2023-070</u>
- U.I. Erkaboev, N.A. Sayidov, R.G. Rakhimov, U.M. Negmatov, Simulation of the temperature dependence of the quantum oscillations' effects in 2D semiconductor materials, Euroasian Journal of Semiconductors Science and Engineering. 3(1), pp.47-55 (2021)
- 32. U.I. Erkaboev, G. Gulyamov, J.I. Mirzaev, R.G. Rakhimov, Modeling on the temperature dependence of the magnetic susceptibility and electrical conductivity oscillations in narrow-gap semiconductors, International Journal of Modern Physics B. 34(7), Article No 2050052 (2020)
- 33. G. Gulyamov, U.I. Erkaboev, N.A. Sayidov, R.G. Rakhimov, The influence of temperature on magnetic quantum effects in semiconductor structures, Journal of Applied Science and Engineering, 23(3), pp.453-460 (2020)
- 34. R. Rakhimov, U. Erkaboev, Modeling of Shubnikov-de Haaz oscillations in narrow band gap semiconductors under the effect of temperature and microwave field, Scientific and Technical Journal of Namangan Institute of Engineering and Technology, 2(11), pp.27-35 (2020)
- 35. U.I. Erkaboev, R.G. Rakhimov, N.A. Sayidov, Mathematical modeling determination coefficient of magneto-optical absorption in semiconductors in presence of external pressure and temperature, Modern Physics Letters B, 35(17), Article No 2150293 (2021)
- 36. U.I. Erkaboev, R.G. Rakhimov, N.Y. Azimova, Determination of oscillations of the density of energy states in nanoscale semiconductor materials at different temperatures and quantizing magnetic fields, *Global Scientific Review*, **12**, pp.33-49 (2023)
- 37. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, The Influence of External Factors on Quantum Magnetic Effects in Electronic Semiconductor Structures, International Journal of Innovative Technology and Exploring Engineering, 9(5), pp.1557-1563 (2021)

- 38. U.I. Erkaboev, R.G. Rakhimov, Determination of the dependence of the oscillation of transverse electrical conductivity and magnetoresistance on temperature in heterostructures based on quantum wells, East European Journal of Physics, **3**, pp.133-145 (2023)
- U.I. Erkaboev, R.G. Rakhimov , Simulation of temperature dependence of oscillations of longitudinal magnetoresistance in nanoelectronic semiconductor materials, e-Prime Advances in Electrical Engineering, Electronics and Energy, 3, Article No 100236 (2023)
- 40. U.I. Erkaboev, G. Gulyamov, R.G. Rakhimov, A new method for determining the bandgap in semiconductors in presence of external action taking into account lattice vibrations, Indian Journal of Physics, **96**(8), pp.2359-2368 (2022)
- 41. U.I. Erkaboev, R.G. Rakhimov, N.A. Sayidov, J.I.Mirzaev, Modeling the temperature dependence of the density oscillation of energy states in twodimensional electronic gases under the impact of a longitudinal and transversal quantum magnetic fields, Indian Journal of Physics, **97**(4), pp.1061–1070 (2023)
- 42. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, U.M. Negmatov, N.A. Sayidov, Influence of a magnetic field and temperature on the oscillations of the combined density of states in two-dimensional semiconductor materials, Indian Journal of Physics, **98**(1), pp.189-197 (2024)
- 43. U.I. Erkaboev, N.A. Sayidov, U.M. Negmatov, J.I. Mirzaev, R.G. Rakhimov, Influence temperature and strong magnetic field on oscillations of density of energy states in heterostructures with quantum wells HgCdTe/CdHgTe, E3S Web of Conferences, 401, Article No 01090 (2023)
- 44. U.I. Erkaboev, N.A. Sayidov, U.M. Negmatov, R.G. Rakhimov, J.I. Mirzaev, Temperature dependence of width band gap in  $In_xGa_{1-x}As$  quantum well in presence of transverse strong magnetic field, E3S Web of Conferences, **401**, Article No 04042 (2023)
- 45. U.I. Erkaboev, R.G. Rakhimov, U.M. Negmatov, N.A. Sayidov, J.I. Mirzaev, Influence of a strong magnetic field on the temperature dependence of the twodimensional combined density of states in InGaN/GaN quantum well heterostructures, Romanian Journal of Physics, **68**, Article No 614 (2023)
- 46. R.G. Rakhimov, Determination magnetic quantum effects in semiconductors at different temperatures, VII International Scientific and Practical Conference "Science and Education: problems and innovations", February 12, pp.12-15 (2021)
- 47. G. Gulyamov, U.I. Erkaboev, R.G. Rakhimov, N.S. Sayidov, J.I.Mirzaev, Influence of a strong magnetic field on Fermi energy oscillations in twodimensional semiconductor materials, Scientific Bull., Phys. and Mathematical Res. 3(1), Article No 2 (2021)
- 48. U.I. Erkaboev, R.G. Rakhimov, N.A. Sayidov, Influence of pressure on Landau levels of electrons in the conductivity zone with the parabolic dispersion law,

Euroasian Journal of Semiconductors Science and Engineering, 2(1), pp.27-33 (2020)

- 49. R. Rakhimov, U. Erkaboev, Modeling the influence of temperature on electron landau levels in semiconductors, Scientific and Technical Journal of Namangan Institute of Engineering and Technology, 2(12), pp. 36-42 (2020)
- 50. R.G. Rakhimov, Clean the cotton from small impurities and establish optimal parameters, The Peerian Journal, 17, pp.57–63 (2023)
- 51. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, U.M. Negmatov, Calculation of oscillations of the density of energy states in heteronanostructured materials in the presence of a longitudinal and transverse strong magnetic field, International conferences "Scientific foundations of the use of new level information technologies and modern problems of automation", pp.341-344 (2022) (*in Russian*)
- 52. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, U.M. Negmatov, Calculations of the temperature dependence of the energy spectrum of electrons and holes in the allowed zone of a quantum well under the influence of a transverse quantizing magnetic field, International conferences "Scientific foundations of the use of new level information technologies and modern problems of automation", pp.344-347 (2022) (*in Russian*)
- 53. U.I. Erkaboev, N.A. Sayidov, J.I. Mirzaev, R.G. Rakhimov, Determination of the temperature dependence of the Fermi energy oscillations in nanostructured semiconductor materials in the presence of a quantizing magnetic field, Euroasian Journal of Semiconductors Science and Engineering, **3**(2), pp.47-52 (2021)
- 54. U.I. Erkaboev, U.M. Negmatov, J.I. Mirzaev, N.A. Sayidov, R.G. Rakhimov, Modeling the Temperature Dependence of the Density Oscillation of Energy States in Two-dimensional Electronic Gases Under the Impact of a Longitudinal and Transversal Quantum Magnetic Field, Acta Scientific Applied Physics, 2(3), pp.12-21 (2022)