

THE STRUCTURE OF TEACHING AND ITS PEDAGOGICAL-PSYCHOLOGICAL ASPECTS BASED ON A HIERARCHICAL APPROACH IN MODERN EDUCATION

Ergashev Nuriddin Gayratovich

Professor of Karshi State Technical University

<https://orcid.org/0000-0002-8274-6193>

Email: finaledition2@mail.ru; Tel: (99) 098-01-00.

Abstract

This article presents the idea that in the era of the development of the modern education system, one of the various approaches to the effective organization and management of education is the hierarchical education system, and hierarchy is a system based on orderly, leveled, and step-by-step development. In education, this approach is based on the fact that it envisages the complete formation of the student through the gradual acquisition of knowledge and competencies.

Keywords: Pedagogical process, digital technology, technical systems, hierarchical approach, teaching, scientific and methodological system, model, etc.

Introduction

In the era of the development of the modern education system, various approaches play an important role in the effective organization and management of education. One of such approaches is the hierarchical education system. By hierarchy is meant a system based on orderly, leveled and step-by-step development. In education, this approach involves the complete formation of the student through the gradual acquisition of knowledge and competencies. However, along with the advantages of this system, there are also pedagogical and psychological problems.

Taking into account the ideas of V.A. Slavenin, recorded in numerous scientific research works, innovative processes in the field of education and science require modern forms and mechanisms of interaction between theory and practice (innovation banks, innovation implementation centers, scientific and practical centers, etc.) in accordance with the requirements of the time. As a result, university students (teachers) are not closely familiar with the most typical models of education, the concepts and educational projects that have become the basis of mass pedagogical movements in different countries.

In higher education institutions of the technical direction, the innovative pedagogy course at pedagogical universities is an exception, involving students in the practical activities of modern new types of schools, giving them content and freedom of choice is carried out based on more difficult forms of education, separate questionnaires and the needs of future teachers [2, 68 p;].



One of the urgent problems of school pedagogy of higher education institutions is that the process of professional formation of future engineers as teachers does not model the structure of innovative activity in digital education, which determines the following: the unexpectedly spontaneous and episodic nature of student teacher training. This is especially important in organizing pedagogical practice as the most focused and highly significant in the professional training of future engineers as teachers.

In order to develop holistic theoretical ideas about the trends in training student teachers for new types of innovative professional activities in the context of digital education, it is necessary to overcome fragmented information about innovative developments in the field of the educational process at pedagogical universities in technical educational institutions of higher education [1; 78 b].

In connection with these principles in the field of education, the use of modern technologies in pedagogy, including in pedagogy in higher education institutions of a technical nature, in particular in the system of training bachelors, masters and additional professional training of future engineering pedagogical staff, is becoming increasingly important.

In the context of the development of digital technologies and the digitalization of society in general, there is a clear tendency to increase the importance of the digital educational environment in the higher education system. At the same time, these problems are considered to be urgent problems of the present era related to higher education:

1. The content and structural structure of hierarchical education

- Hierarchical education, by its very nature, provides for the systematic, consistent and gradual acquisition of knowledge. It consists of the following main structural levels:
- Knowledge level: theoretical information, concepts, definitions.
- Skill level: application of knowledge in practice, performance of exercises.
- Skill level: activity that has become a solid skill, automated.
- Creative level: the ability to create a new idea, method or solution based on existing knowledge and skills.
- These stages are interconnected, and one serves as the basis for the other. If one stage is not fully mastered, moving on to the next will be ineffective - this is the main principle of the hierarchical approach.

2. Pedagogical advantages of the hierarchical approach

- Systematicity: allows for the systematic study of knowledge.
- Flexibility: the approach can be adapted to each student's level of knowledge.
- Depth of learning: thorough mastery is expected at each stage.
- Effectiveness: knowledge and skills are firmly formed, and then creativity is transferred.
- This approach is especially useful in complex subjects (mathematics, programming, linguistics).



3. Psychological aspects and problems

- However, there are also some psychological problems with hierarchical learning:
- Ignoring individual differences: Not every student can acquire knowledge at the same speed. If the stages are rigid, students who master slower may fall behind.
- Limiting creativity: Relying on too rigid stages can delay creativity. Some want to show a creative approach from the very beginning.
- Stress and pressure: The need to “pass” each stage creates psychological pressure for some students, which can reduce self-confidence.
- Dependence on the teacher’s approach: Applying a hierarchical system correctly requires great pedagogical skill. If mismanaged, it can lead to student fatigue, loss of interest, or apathy.

4. Solutions and suggestions.

The following solutions are proposed for the effective use of the hierarchical education system:

- Differential approach: teaching at an appropriate pace, taking into account the individuality of students.
- Flexible stages: introducing semi-independent creative tasks into each stage.
- Psychological support: building positive motivation and confidence in students.
- Improving the skills of teachers: teachers need to deeply master the theoretical and practical aspects of the hierarchical system.

Conclusion

Hierarchical education is one of the effective approaches in today's modern education system. Through it, it is possible to master knowledge in a deep, step-by-step manner. However, when implementing this approach, it is important to take into account psychological factors and the individual characteristics of the student. Only then will hierarchical education lead to true success.

REFERENCES

1. Кларин, М.В. Инновационные модели в зарубежных педагогических поисках / М.В. Кларин. – М.: Арена, 1994. – 365 с.
2. Бендова, Л.В. Педагогическая деятельность тьютора в сети открытого дистанционного профессионального образования : автореф. дис. ... канд. пед. наук / Л.В. Бендова. – М., 2006. – 23 с.
3. Аракелов, А.В. Комплексная инновационная технология профильного обучения в структуре послевузовского педагогического образования : дис. ... канд. пед. наук / А.В. Аракелов. – Краснодар, 2008. – 452 с. : 34 ил.
4. Gayratovich, E. N. (2019). USING VISUAL PROGRAM TECHNOLOGY METHODS IN ENGINEERING EDUCATION. European Journal of Research and Reflection in Educational Sciences Vol, 7(10).
5. Gayratovich, E. N. (2021). SPECIFIC ASPECTS OF EDUCATIONAL MATERIAL DEMONSTRATION ON THE BASIS OF VISUAL TECHNOLOGIES. International Engineering Journal For Research & Development, 6, 3-3.



6. G'ayratovich, E. N. (2022). It Is A Modern Educational Model Based On The Integration Of Knowledge. Eurasian Scientific Herald, 5, 52-55.
7. G'ayratovich, E. N. (2022). The Theory of the Use of Cloud Technologies in the Implementation of Hierarchical Preparation of Engineers. Eurasian Research Bulletin, 7, 18-21.
8. Gayratovich, E. N., & Yuldashevna, T. O. (2020). Use of visualized electronic textbooks to increase the effectiveness of teaching foreign languages. European Journal of Research and Reflection in Educational Sciences Vol, 8, 12.
9. Ergashev, N. (2021). METHODS OF USING VISUALIZED EDUCATIONAL MATERIALS IN TEACHING PROGRAMMING LANGUAGES IN TECHNICAL UNIVERSITIES. INNOVATION IN THE MODERN EDUCATION SYSTEM.
10. Ergashev, N. (2020). Didactic fundamentals of electronic books visualization. An International Multidisciplinary Research Journal.
11. Ergashev, N. (2020). Using the capabilities of modern programming languages in solving problems of technical specialties. An International Multidisciplinary Research Journal.
12. Ergashev, N. (2022, May). FEATURES OF MULTI-STAGE TRAINING OF TEACHERS'CONTENT TO PROFESSIONAL ACTIVITIES USING CLOUD TECHNOLOGY IN THE CONDITIONS OF DIGITAL EDUCATION. In International Conference on Problems of Improving Education and Science (Vol. 1, No. 02).
13. Ergashev, N. (2022, May). THEORETICAL STAFF TRAINING USING CLOUD TECHNOLOGY IN CONTINUING EDUCATION. In International Conference on Problems of Improving Education and Science (Vol. 1, No. 02).
14. Ergashev, N. (2022, May). PROBLEMS OF USING DIGITAL EDUCATION IN PEDAGOGICAL THEORY AND PRACTICE. In International Conference on Problems of Improving Education and Science (Vol. 1, No. 02).
15. Ergashev, N. (2022, May). THEORY OF TRAINING OF PEDAGOGICAL PERSONNEL IN HIGHER EDUCATION USING CLOUD TECHNOLOGIES IN THE CONDITIONS OF DIGITAL EDUCATION. In International Conference on Problems of Improving Education and Science (Vol. 1, No. 02).
16. Ergashev, N. (2022, May). PROBLEMS OF DIGITAL EDUCATION IN PEDAGOGICAL THEORY AND PRACTICE. In International Conference on Problems of Improving Education and Science (Vol. 1, No. 02).
17. Ergashev, N. (2021). METHODS OF USING VISUALIZED EDUCATIONAL MATERIALS IN TEACHING PROGRAMMING LANGUAGES IN TECHNICAL UNIVERSITIES. INNOVATION IN THE MODERN EDUCATION SYSTEM.
18. G'ayratovich, E. N. (2022). The Problem of Training Future Engineer Personnel on the Basis of Cloud Technology in Technical Specialties of Higher Education. Eurasian Scientific Herald, 13, 1-4.
19. Gayratovich, E. N., & Jovliyevich, K. B. (2023). Theory and Methodology of Software Modeling Using the Web Platform. Eurasian Scientific Herald, 16, 59-63.
20. Ergashev, N. (2023). Methods of teaching parallel programming methods in higher education. Electron Library Karshi EEI, 1(01). Retrieved from <https://ojs.qmii.uz/index.php/el/article/view/271>



21. ERGASHEV, N. THE ANALYSIS OF THE USE OF CLASSES IN C++ VISUAL PROGRAMMING IN SOLVING THE SPECIALTY ISSUES OF TECHNICAL SPECIALTIES. <http://science.nuu.uz/uzmu.php>.
22. Gayratovich, Ergashev Nuriddin. "A MODEL OF THE STRUCTURAL STRUCTURE OF PEDAGOGICAL STRUCTURING OF EDUCATION IN THE CONTEXT OF DIGITAL TECHNOLOGIES." American Journal of Pedagogical and Educational Research 13 (2023): 64-69.
23. Shodiyev Rizamat Davronovich, and Ergashev Nuriddin Gayratovich. "ANALYSIS OF EXISTING RISKS AND METHODS OF COMBATING THEM IN CLOUD TECHNOLOGIES". American Journal of Pedagogical and Educational Research, vol. 18, Nov. 2023, pp. 190-8, <https://www.americanjournal.org/index.php/ajper/article/view/1522>.
24. Shadiev Rizamat Davranovich, & Ergashev Nuriddin Gayratovich. (2024). DIDACTIC CONDITIONS FOR TRAINING TEACHERS IN A DIGITAL EDUCATIONAL ENVIRONMENT BASED ON A HIERARCHICAL APPROACH. European International Journal of Pedagogics, 4(12), 175–181. <https://doi.org/10.55640/eijp-04-12-39>

