

# Artículo de investigación

# Organization of practical classes in a higher educational institution using modern educational technologies

Организация практических занятий в высшем учебном заведении с использованием современных образовательных технологий

Organización de clases prácticas en una institución de educación superior utilizando tecnologías educativas modernas

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#### Abstract

Formation of a competent teacher of vocational training is a task that arises before modern higher educational institutions as a response to the request of the state and society. Universities strive to select the most optimal ways of becoming graduates in the framework of the competency-based approach. Today, one of the priority areas in the preparation of students is the formation of technological competence, which is an especially important part of the professional training of the teacher as a whole. The purpose of the article is to consider the organization of seminars at a university using various pedagogical technologies to identify their capabilities in shaping the technological competence of future vocational education teachers.

The article reveals the essence and types of seminars implemented by higher education institutions. The seminar is a higher level of organization of students' educational activities, practical classes are problematic. Substantiating this provision, the author notes that it is in such conditions that the student resorts to an independent study of the issue, forming skills to work with a lot of information and building up the structure, the logic of his activity, which allows the formation of professional and pedagogical skills.

As the main educational technologies, the author distinguishes design, gaming, discussion, problem-based learning, information, case technologies. The author considers the formation

#### Аннотация

Формирование компетентного профессионального обучения – задача, возникающая перед современными высшими образовательными учреждениями как ответ на запрос государства и общества. Вузы стремятся к подбору наиболее оптимальных способов становления выпускников в рамках компетентностного подхода. На сегодняшний день одним из приоритетных направлений в подготовке студентов является формирование технологической компетентности, являющейся особенно профессиональной важной частью подготовки педагога в целом. Цель статьи заключается в рассмотрении организации семинарских занятий в вузе с использованием различных педагогических технологий для выявления их возможностей в формировании технологической компетентности будущих педагогов профессионального обучения.

В статье раскрывается сущность и виды семинарских занятий, реализуемых высшими учебными заведениями. Семинар является более высоким уровнем организации учебной деятельности студентов, данные практические занятия носят проблемный характер. Обосновывая данное положение, автор отмечает, что именно в таких условиях обучающийся прибегает к самостоятельному исследованию вопроса, формируя навыки работы с большим количеством информации выстраивания структуры, собственной деятельности, что позволяет

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of the technical competence of vocational education teachers in a higher educational institution by the example of a seminar using gaming technologies.

**Keywords:** Pedagogical technologies; communicative competence; students, seminar, practical lesson.

сформировать профессионально-педагогические навыки.

В качестве основных образовательных технологий автор выделяет проектные, игровые, дискуссионные, проблемного обучения, информационные, технологии. Формирование технологической компетентности педагогов профессионального обучения в высшем образовательном учреждении автор рассматривает на примере семинара с использованием игровых технологий.

**Ключевые слова:** педагогические технологии; коммуникативная компетентность; студенты; семинар, практическое занятие.

#### Resumen

La formación de un maestro competente de formación profesional es una tarea que surge ante las instituciones modernas de educación superior como respuesta a la solicitud del estado y la sociedad. Las universidades se esfuerzan por seleccionar las formas más óptimas de graduarse en el marco del enfoque basado en competencias. Hoy, una de las áreas prioritarias en la preparación de los estudiantes es la formación de competencia tecnológica, que es una parte especialmente importante de la formación profesional del maestro en su conjunto. El propósito del artículo es considerar la organización de seminarios en una universidad utilizando diversas tecnologías pedagógicas para identificar sus capacidades en la formación de la competencia tecnológica de los futuros maestros de educación vocacional.

El artículo revela la esencia y los tipos de seminarios implementados por las instituciones de educación superior. El seminario es un mayor nivel de organización de las actividades educativas de los estudiantes, estas clases prácticas son problemáticas. Al fundamentar esta disposición, el autor señala que es en tales condiciones que el estudiante recurre a un estudio independiente del tema, formando habilidades para trabajar con mucha información y construyendo la estructura, la lógica de su propia actividad, que permite la formación de habilidades profesionales y pedagógicas.

Como las principales tecnologías educativas, el autor distingue el diseño, los juegos, la discusión, el aprendizaje basado en problemas, la información y las tecnologías de casos. El autor considera la formación de la competencia tecnológica de los docentes de educación vocacional en una institución de educación superior mediante el ejemplo de un seminario que utiliza tecnologías de juego.

Palabras clave: Tecnologías pedagógicas; competencia comunicativa; estudiantes seminarios, clase práctica.

# Introduction

The modern stage of development of society is characterized by increasing requirements for the training of teachers of vocational training. The national doctrine of education of the Russian Federation until 2025 establishes the need to train highly qualified specialists in the field of education, capable of building an effective educational process in the conditions of the constant development of technologies ready for professional self-improvement (Kutepov et al, 2017). Therefore, educational institutions, acting within the competence-based approach, are looking for ways to achieve the results indicated by the state and society in the formation of

teachers of vocational training (Aniskin et al, 2017). Practice plays an important role in this process (Markova et al, 2018). The modern student operates in a constantly changing environment, he must meet the requirements of modernity, be mobile and quickly involved in the work (Natalie et al, 2019). Therefore, having mastered the theoretical part of the material, he needs to implement it in practice (Pometun et al, 2018). The activity of students during seminars helps to consolidate the material and to navigate the professional conditions through the use of a teacher the various activities and application of modern educational technology, select by the



purposes and objectives of the lesson (Garnevska et al., 2018). Among the most popular pedagogical technologies are a project, game, discussion, problem-based learning, information, case technologies (Ihnatenko et al, 2018). All of them are implemented by higher education institutions (Klinkov et al, 2018). One of the most popular technologies implemented in the training of teachers of vocational training are game technologies. They help to prepare the student for the implementation of professional activities by "immersion" in the conditions (tasks, contradictions, problems) that may arise in the real work process (Vaganova et al, 2018). A teacher of vocational training should use a large number of activities in his / her work (Vaganova et al, 2017a). The game is the most relevant in the implementation of this process, as it maximally activates the student's involvement in the educational process and contributes to the formation of technological competence as an integral part of the professional formation of the future teacher of vocational training (Zhytukhina et al, 2017).

#### Theoretical basis

Such scientists as G. K. Selevko, E. F. Zeer, I. A. Zimnaya were engaged in questions of training of teachers of professional training with the use of pedagogical technologies. The concept of "pedagogical technology" has no unambiguous interpretation, so each author offers the most convenient interpretation. For example, V. p. Bespalko offers the most capacious and concise definition: - " this is a meaningful technique for the implementation of the educational process.' Someone defines it as a model, saying that pedagogical technology is a well-thought-out model of joint pedagogical activity for the design, organization and conduct of the educational process with the provision of comfortable conditions for students and teachers (Vaganova et al, 2017b).

The theme of the formation of professional competence is covered in the works of S. B. Elkanova, V. G. Zhuravlev, E. M. Vereshchagin E. M., Kostomarov. Technological competence is considered by A. V. Khutorsky, V. I. Baidenko. Technological competence is an integral part of the professional competence of the future teacher of vocational training, so they are often considered in close relationships with each other (Smirnova et al, 2017). Many authors reveal this relationship by the example of practical seminars (Smirnova et al, 2018). The seminar is the most common format of practical

training in the world (Abramova et al, 2018). A seminar session in a higher education institution is a form of interactive group learning in which students (with a consulting role as a teacher) discuss any questions on a specific topic of the discipline being studied (Bartkiv et al, 2018). Many authors note that the seminar is aimed at the in-depth study of theoretical material, contributes to the formation of independence, activates the cognitive activity of students, allows them to form the ability to build reasoned answers based on scientific facts (Bulaeva et al, 2018).

Seminars - a higher level of organization of educational activities of future teachers of vocational training.

Various educational technologies are used to conduct them. Students, in the process of working on such practical classes form technological competence.

In this regard, there are several types of seminars: seminar-discussion, seminar-conference, seminar – problem-solving; seminar-brainstorming; seminar-business game; seminar-debate; seminar-round table; mixed form with elements of different forms of conduct.

## Methodology

When mastering the discipline "Pedagogical technologies", studying the sections "Diversity of pedagogical technologies", "Designing components of pedagogical technology" problem seminars are held quite often.

Highlighting the key topics of the seminar, the teacher gradually combines them so as to activate the attention of the audience, and to achieve a joint search for a solution to the situation.

The problematic issue is often provided by gaming technologies. The basis is the real situation, important for the future activities of the graduate.

As part of the implementation of game technologies, the stages of the seminar participants are presented as follows. At the first stage, the problem to be solved is formulated, the conditions of collective work are determined, the rules are announced. Participants are divided into subgroups. This is followed by the stage "analysis of ideas" in subgroups. The third stage is the collection of information on performance, evaluation and self-evaluation of activities.

The seminar-round table allows students to improve the skills of dialogue. The workshop, using case studies, allows you to study specific professional situations from real practice. This practical lesson allows you to implement the functions of research, study, development, selfassessment and self-control. The study was conducted in Nizhny Novgorod state pedagogical University named after Kozma Minin among students enrolled in the direction of "Vocational training (by industry)." Among them were students enrolled in the profile "law and law enforcement" in the number of 60 people (2 groups), as well as students in the profile "Economics and management" in the number of 55 people (2 groups). A total of 115 students participated in the study. Modern educational technologies were used in practical classes. Among them are gaming, case technology, round table, brainstorming. Each lesson problematic. The gaming technology allows expanding possibilities of development of future teachers of vocational training of pedagogical technologies, as gaming activity activates an independent search of students who solve the set tasks.

## Analysis

In the mentioned pedagogical technologies, the key idea is problematic, in varying degrees, therefore, one of the most popular in the process of formation of technological competence of teachers of vocational training are seminars with elements of problem-based learning (Chirva et al., 2018).

The essence of the problem lies in the resolution of various contradictions, the use of non-traditional forms of organization and the conduct of training sessions (Denysenko et al, 2018). The teacher encourages students to independent reasoning and active search for answers to questions. Among the structural elements of the problem seminar are: an educational problem; problem situation, problem question.

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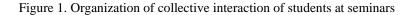
the attention of the audience, and to achieve a joint search for a solution to the situation.

The problematic issue is often provided by gaming technologies. The basis is the real situation, important for the future activities of the graduate. Problematic issues in this case are of two types. The first include those that focus students on the development of methodological foundations, understanding the conclusions that arise from the content of the topic considered at the seminar (classification of pedagogical technologies; types of pedagogical technologies; author's pedagogical technologies; design of the system of learning objectives; methods of designing the content of educational material; designing a system of methods and tools in training; designing a system of evaluation of educational and cognitive activity), as well as aimed at the development of existing experience. Such problematic issues allow students to develop educational and research activities. The second type of questions are those that contribute to the development of improving skills and abilities of independent application of theoretical knowledge. As a result of work on such issues there are projects, products of research activities. seminar "brainstorming" using (brainstorming) is also common in pedagogical higher education institutions. As part of the implementation of gaming technologies, this method is characterized by intense creative mental work of students, dynamic thought processes, abstraction from the usual stereotyped views, focus on a specific goal. It allows you to develop a solution to a difficult problem in the shortest possible time and start the next stage of the game.

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Figure 1 shows the process of collective interaction in the implementation of game technologies at the seminar among future teachers of vocational training.







The seminar-round table allows students to improve the skills of dialogue. The workshop, using case studies, allows you to study specific professional situations from real practice. This practical lesson allows you to implement the functions of research, study, development, self-assessment and self-control. These types of seminars are not exhaustive. However, their use in the formation of the technological competence of teachers is one of the best.

# Conclusions

The organization of the seminar with the use of modern educational technologies is the most favorable form of practical training for the formation of technological competence. The technology allows gaming expanding possibilities of development of future teachers of vocational training of pedagogical technologies, as gaming activity activates an independent search of students who solve the set tasks. In the process of studying the discipline "Pedagogical technologies" students analyze a large amount of material about existing technologies, actively develop ideas, as much as possible involved in the educational process.

### References

Kutepov, M.M., Vaganova, OI, &Trutanova, A.V. (2017). Possibilities of health-saving technologies in the formation of a healthy lifestyle. Baltic Humanitarian Journal, 6(3), 210-213. https://elibrary.ru/item.asp?id=30381912. Aniskin V.N., Dobudko E.S., Zhuranova N.A. Realization of the didactic potential of the informatics project activity within the framework of cooperation of school-pedagogical university (2017) Balkan Scientific Review 2017 No. 1 pp.5-8

Markova S.M., Narcosiev A.K. Professional education of vocational school students. Vestnik of Minin University. 2018. Vol. 6, no. 3. P.3. DOI: 10.26795/2307-1281-2018-6-3-3.

Natalie V. Kamenez, Zhanna V. Smirnova, Olga I. Vaganova, Natalia V. Bystrova and Julia M. Tsarapkina, Development of Instructing Techniques in Professional Training, International Journal of Mechanical Engineering and Technology, 10(02), 2019, pp. 899–907

Pometun O. I., Gupan N. M. Studying history as an educational space of students'critical thinking development (2018) Humanitarian Balkan Research 2018. No. 1 pp. 60-63.

Garnevska S.M. opportunities for forming communication technology images in training in technology and entrepreneurship (2018) Balkan Scientific Review 2018 No. 1 pp. 34-37.

Ihnatenko H.V., Ihnatenko K.V. Formation of self-dependence as a professional ly-important personality trait of a future vocational education teacher by means of case-technology (2018) Humanitarian Balkan Research 2018. No. 1 pp. 40-42.

Klinkov G.T. The specificity of manifestation of pedagogical communication as a special construct (2018) Scientific Vector of the Balkans 2018 No. 1 pp.51-52

Smirnova Zh.V., Krasikova O.G. Modern tools and technologies for assessing learning outcomes. Vestnik of Minin University. 2018. Vol. 6, no. 3. P. 9. DOI: 10.26795/2307-1281-2018-6-3-9.

Smirnova ZH.V., Vaganova O.I., Trutanova A.V. Final state certification as a way to comprehensive assessment of competences. Karelian Scientific Journal, 2017, vol. 6, no. 3(20), pp. 74-77.,https://elibrary.ru/item.asp?id=30453035 (in Russian).

Vaganova O.I., Ilyashenko L.K. The main directions of implementation technologies of student-centered education in high school. Vestnik of Minin University. 2018. vol. 6, no. 3. p.2 DOI: 10.26795 / 2307-1281-2018-6-3-2 (in Russian).

Vaganova O.I., Koldina M.I., Trutanova A.V. Development of the content of vocational and pedagogical education in the context of the implementation of the competence approach. Baltic Humanitarian Journal, 2017a, vol. 6, no. 2(19), pp. 97-99 (in Russian).

Vaganova, O. I., Smirnova, ZH. V. & Trutanova, A. V. (2017b). Organization of research activities of bachelor of professional education in electronic form Azimuth of Scientific Research:

Pedagogy and Psychology, 6(3), 239-241.https://elibrary.ru/item.asp?id=30101872 (in Russian).

Zhytukhina K. P. Realization of the pedagogical condition for improving the process of formation of responsible attitude to future profession in students of pedagogical universities (2017) Scientific Vector of the Balkans 2017 No. 1 pp.26-30

Abramova N.S., Vaganova O.I., Kutepova L.I. Development of educational and methodological support in the context of the implementation of information and communication technologies. Baltic Humanitarian Journal. 2018. t. 7. no. 2 (23). pp. 181-184. https://elibrary.ru/item.asp?id=35327269 (in Russian).

Bartkiv O. S., Durmanenko E. A. Interactive methods in the process of future teachers' training for the higher education institutions modeling (2018) Humanitarian Balkan Research 2018. No. 1 pp.30-32.

Bulaeva M.N., Vaganova O.I., Gladkova M.N. Activity technologies in a professional educational institution. Baltic Humanitarian Journal. 2018. t. 7. no. 3 (24). pp. 167-170. https://elibrary.ru/item.asp?id=36237878 (in Russian).

Chirva A.N., Chirva O.G. Contents and method of professionally oriented training of informatic disciplines of future teachers of technologies (2018) Scientific Vector of the Balkans 2018 No. 1 pp.27-31

Denysenko S.M. Application of quest technology in the professional training OF Bachelor of Publishing and Polygraphy in Higher School (2018) Balkan Scientific Review 2018 No. 1 pp. 29-33.