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TEXNIKA OLIY O'UV YURTLARI O'QITUVCHILARINING AXBOROT VA KOMMUNAKTIV KOMPETENTSIYALARINI SHAKLLANTIRISHNING PEDAGOGIK SHARTLARI

Annotatsiya

Ushbu maqola texnika oliy o'quv yurtlari o'qituvchilari o'rtasida axborot-kommunikatsiya kompetensiyasini samarali shakllantirish uchun zarur bo'lgan pedagogik shart-sharoitlarni o'rganishga bag'ishlangan. O'zaro hamkorlik va axborot almashish kasbiy o'sish va muvaffaqiyatli o'qitishning asosiy elementlariga aylanib borayotgan zamonaviy ta'lim muhitida ushbu kompetensiyani rivojlantirish muhimligiga alohida e'tibor qaratilmoqda. Mazkur maqolada biz asosiy muammo va vazifalarni belgilab, texnika oliy o'quv yurtlari professor-o'qituvchilarining axborot-kommunikatsiya kompetentsiyasining hozirgi holatini tahlil qilishni o'zimizga maqsad qilib oldik.

Kalit so'zlar: axborot-kommunikatsiya kompetensiyasi, texnik oliy o'quv yurtlari o'qituvchilari, ta'lim muhiti, malaka oshirish, pedagogik sharoitlar.

ПЕДАГОГИЧЕСКИЕ УСЛОВИЯ ФОРМИРОВАНИЯ ИНФОРМАЦИОННО-КОММУНИКАЦИОННОЙ КОМПЕТЕНТНОСТИ ПРЕПОДАВАТЕЛЕЙ ТЕХНИЧЕСКИХ ВУЗОВ

Аннотация

Данная статья посвящена изучению педагогических условий, необходимых для эффективного формирования информационно-коммуникативной компетентности у преподавателей технических вузов. Акцент делается на важности развития данной компетенции в современной образовательной среде, где взаимодействие и обмен информацией становятся ключевыми элементами профессионального роста и успешного преподавания. Данной статьей мы поставили перед собою цель анализировать современное состояние информационно-коммуникативной компетентности профессорско-преподавательского состава технических вузов, выявляя основные проблемы и задачи.

Ключевые слова: информационно-коммуникативная компетентность, преподаватели технических вузов, образовательная среда, профессиональное развитие, педагогические условия.

PEDAGOGICAL CONDITIONS FOR THE FORMATION OF INFORMATION AND COMMUNICATION COMPETENCE OF TEACHERS OF TECHNICAL UNIVERSITIES

Annotation

This article is devoted to the study of the pedagogical conditions necessary for the effective formation of information and communication competence among teachers of technical universities. The emphasis is on the importance of developing this competency in a modern educational environment, where interaction and information exchange are becoming key elements of professional growth and successful teaching. With this article, we set ourselves the goal of analyzing the current state of information and communication competence of the teaching staff of technical universities, identifying the main problems and tasks.

Key words: information and communication competence, teachers of technical universities, educational environment, professional development, pedagogical conditions.

Introduction. Modern education requires teachers of technical universities not only to have deep knowledge in their field, but also to actively possess information and communication skills. With rapid technological advancement and globalization, the exchange of knowledge and experience has become unprecedentedly important. The purpose of this article is to identify pedagogical conditions that contribute to the formation of information and communication competence among teachers of technical universities. The authors analyze the current situation in this area and offer practical recommendations for optimizing the educational process taking into account modern requirements and challenges.

Modern education is in constant development, which is directly related to the changing world. As a result of global changes, new content, methods, technologies and teaching techniques are emerging that modern teachers need to master in order to correctly structure their work and achieve their goals.

Informatization has affected all spheres of human activity, including the sphere of education, changing the nature and dynamics of the educational process. The increased role of information, the emergence of new information, technological and communication conditions have actualized the problem of developing the information and communication competence of future specialists [1, 3, 4].

Thus, we can conclude that there is a direct connection between the formation of information and communication competence of future specialists and the information and communication nature of the pedagogical process itself. Researchers note that the demand for information in the pedagogical system is an indicator of the activity of the educational process, while the ability to control and analyze the information flow determines the effectiveness of managing the pedagogical process [2, 5, 6].

Research methodology. The formation of information and communication competencies among teachers is an important aspect of their professional training, since the modern educational environment requires teachers to actively use information technology and effectively communicate with students, colleagues and parents (fig.1) [7, 8, 10, 11].

1. Professional training:

- Courses and trainings: Organization of special courses and trainings covering the use of modern information technologies, effective communication methods and the use of innovative pedagogical techniques.

- Training on online resources: Familiarity with pedagogical and educational resources on the Internet, as well as the ability to integrate them into the educational process.
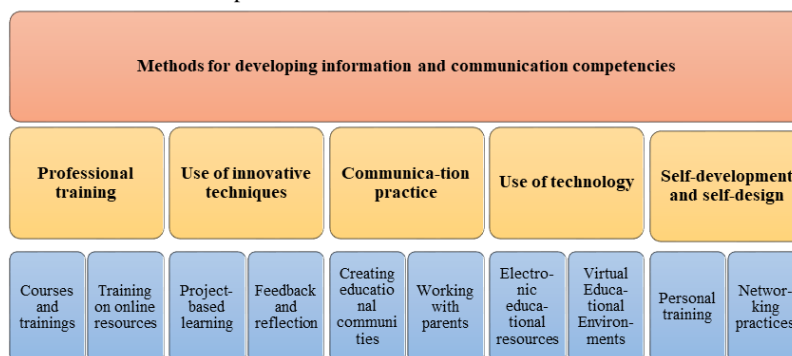

Figure.1. Methods for developing information and communication competencies

2. Use of innovative techniques:

- Project-based learning: Working within projects contributes to the development of communication skills and the ability to work effectively in a team.

- Feedback and reflection: Introduction of systematic feedback methods and reflective practices to develop skills of self-analysis and self-regulation.

3. Communication practice:

- Creating educational communities: Participation in professional communities where teachers can exchange experiences and ideas.

- Working with parents: Establishing effective interaction with students' parents, which is also an important part of information and communication competencies.

4. Use of technology:

- Electronic educational resources: Training in the use of electronic platforms, cloud technologies and other means for organizing effective training [9, 12].

- Virtual Educational Environments: Experience working with virtual classrooms and educational platforms that develop online communication skills.

5. Self-development and self-design:

- Personal training: Promoting active self-development of teachers through reading professional literature, participating in webinars and conferences.

- Networking practices: Participation in social networks and professional online communities to exchange experiences and receive feedback [13, 14, 15].

It is important that these methods interact with each other, creating a comprehensive system for developing information and communication competencies among teachers. Providing systematic support and feedback also plays a key role in the successful development of these skills.

Results. The formation of information and communication competencies among teachers can be structured in the form of an algorithm that includes a sequence of stages and methods. In the course of research, we compiled an approximate algorithm for improving the formation of information and communication competencies among teachers of technical universities. This algorithm represents a chain of formation of goals and objectives, stages of formation and implementation of activities, as well as improving the results obtained through feedback.

First step. **Needs analysis**:

- *Definition of goals and objectives*: During the study, we conducted a social survey among professors, university teachers and students. From the results of the surveys, it was determined what information and communication competencies teachers need in the context of their subject area and modern educational requirements.

- *Survey and feedback*: To conduct the survey and identify key aspects, the experiences of foreign countries were analyzed and questions were compiled, as well as sample answers. By conducting surveys, we collected feedback from teachers about what skills they require for effective teaching.

Second step. Professional education:

- *Organization of training courses*: Having analyzed foreign experience, we have developed and selected training programs covering the basics of information technology, teaching methods and communication.

- *Conducting trainings*: After selecting the program, we organized practical trainings on the use of modern educational technologies and effective communication.

Third step. Practical use:

- *Integration into the educational process*: Developed modern educational technologies by trained teachers were introduced to obtain new knowledge and skills in the educational process.

- *Creation of educational projects*: To improve and shape this program, teachers were gradually encouraged to create projects that included the use of information technology and active interaction with students.

Fourth step. Feedback and rating:

- *Feedback system*: The developed feedback system was implemented to evaluate the progress of teachers in the development of information and communication competencies during the entire period of experimental testing.

- Assessment in practice: Quarterly assessments of the effectiveness of new methods and technologies in the educational process were carried out.

Fifth step. Support and motivation:

- Creation of educational communities: To support the research project, educational communities, foresight centers and online platforms were created where teachers could exchange experiences and solve emerging problems.

- Motivational programs: With the support of management, motivational programs were introduced to stimulate the active participation of teachers in the process of developing their information and communication skills.

Sixth step. Self-development:

- Encouraging independent learning: Teachers who sought to independently study new technologies and techniques were encouraged and supported.

- Networking: Separately, teachers were highlighted and encouraged to participate in online communities to exchange experiences and learn from the practical experience of colleagues.

The algorithm turned out to be flexible, taking into account the specifics of the educational institution, the needs of teachers and quick response to changes in the field of education and technology. Constant support and updating of the training program helped ensure the successful development of information and communication competencies among teachers.

In conclusion, the presented algorithm turned out to be a highly effective tool for developing information and communication competencies among teachers. The flexibility of this methodology is manifested in the ability to adapt to the unique characteristics of each educational institution, as well as taking into account the individual needs of teachers. The specifics of technical universities require teachers not only to possess technical knowledge, but also to develop information and communication skills. The algorithm has successfully covered this aspect, providing teachers with the necessary tools to effectively interact with the modern educational environment.

Particular attention should be paid to the ongoing support and updating of the training program. This aspect has played a key role in keeping the methodology relevant and relevant to changes in education and technology. Regular monitoring and adaptation of the program made it possible to quickly respond to new requirements, while maintaining the high efficiency of the process of developing competencies. Thus, the use of this algorithm not only contributed to the successful development of information and communication competencies among technical university teachers, but also emphasized the importance of flexibility, constant support and updating in the learning process to match the rapidly changing educational and technological context.

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