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FACTORS IN THE DEVELOPMENT OF INFORMATION AND COMMUNICATIONS COMPETENCE IN TEACHERS IN A UNIVERSITY'S INTERNAL SYSTEM OF ADVANCED TRAINING

FACTORES DE DESENVOLVIMENTO DA COMPETÊNCIA EM MATÉRIA DE INFORMAÇÃO E COMUNICAÇÃO NOS PROFESSORES DO SISTEMA INTERNO DE FORMAÇÃO AVANÇADA DE UMA UNIVERSIDADE

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ABSTRACT

The study focuses on factors in the development of information and communications competence. The authors describe the effects of the application of information and communications technology as an applied basis for developing information and communications competence and the impact of pedagogical competence as a theoretical foundation for the development of information and communications competence. The obtained findings are utilized to propose a comprehensive strategy to facilitate the development of information and communications competence in teachers accounting for all the significant factors in it and including all stages of its development. The presented approach ensures consistent development of the competencies from the development of educational programs and to self-assessment and further improvement of the skills. Considering such factors as the educational environment, individual psychological characteristics, pedagogical experience, and motivation, it is possible to considerably improve the results and utilize ICT to increase the quality of education.

Keywords: Information competence. Information and communications competence. Factors in the development of information and communications competence.

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RESUMO

O estudo centra-se nos factores de desenvolvimento da competência em matéria de informação e comunicação. Os autores descrevem os efeitos da aplicação das tecnologias da informação e da comunicação como base aplicada para o desenvolvimento da competência em matéria de informação e comunicação e o impacto da competência pedagógica como base teórica para o desenvolvimento da competência em matéria de informação e comunicação. Os resultados obtidos são utilizados para propor uma estratégia abrangente para facilitar o desenvolvimento da competência em matéria de informação e comunicação nos professores, tendo em conta todos os factores significativos e incluindo todas as fases do seu desenvolvimento. A abordagem apresentada garante um desenvolvimento consistente das competências, desde o desenvolvimento de programas educativos até à autoavaliação e ao aperfeiçoamento das competências. Considerando factores como o ambiente educativo, as características psicológicas individuais, a experiência pedagógica e a motivação, é possível melhorar consideravelmente os resultados e utilizar as TIC para aumentar a qualidade da educação.

Palavras-chave: Competência em matéria de informação. Competência em matéria de informação e comunicação. Factores de desenvolvimento da competência em matéria de informação e comunicação.

Introduction

The focus of the present study lies in the complex of factors that have considerable influence on the development of information and communications competence (IC competence) in the faculty of universities of arts and culture. This research interest is due to the fact that contemporary society, transitioning from the post-industrial to the information type, closely interacts with information technology in all spheres of human life. Whereas a few years ago, informatization processes did not affect the creative sphere as much, at present IT is widely used in choreography and folks, decorative, and applied arts, to name a few. Implementing training programs in these specialties, subject teachers stronger than ever need to actualize their competencies in selecting, assimilating, processing, transforming, and generating information using contemporary software and hardware, which ultimately will enrich the educational process and make it more illustrative and popular among students (Zimniaia, 2003, 2006).

The pace of development of the information society entails the fact that the work of today's higher education teachers is not preordained for the entire period of their employment. On the contrary, university faculty face the need for continuous

education and constant advancement of their professional competence. Currently, as a future specialist goes through training, several generations of software and hardware come and go, new IT appears, and the content of IC competence as a science is changed and revised. Therefore, the vocational training of teachers needs to not only develop subject-specific knowledge and skills but foster the personal qualities that would allow the teacher to solve new pedagogical tasks in the future.

Without establishing the needs of teachers for information and communications technology (ICT), it is impossible to develop and implement a relevant training program. In turn, without training and the practical use of ICT, the teacher is unable to appreciate the knowledge and skills acquired or apply them in the educational process (Klimenko, 2015). Additionally, a critical task is to consider the factors affecting the process of developing IC competence, among which are the teacher's motivation, their level of training, and opportunities to use ICT in the teaching process.

The aim of the present study is to establish factors in the development of IC competence in teachers in the framework of a university's internal advanced training system.

Results and discussion

The factors affecting the development of IC competence in teachers in the conditions of a university's advanced training system are varied and multifaceted. Below we consider their main groups.

Educational environment

The internal university advanced training system is a chief factor in the development of teachers' IC competence. In this environment, faculty members can obtain new knowledge and skills, communicate with colleagues and experts, and exchange experience, which facilitates the development of IC competence (Khalitova, 2009).

In this connection, the educational environment is a critical factor in the development of the IC competence of teachers in the context of a university's advanced training system.

An internal university advanced training system assumes faculty undergoing advanced training within their educational institution, which allows teachers to raise their professional level, acquire new knowledge and skills, deepen their professional knowledge, and develop IC competence (Kharitonova, 2007; Slastenin et al., 2002).

The educational environment created by a university's advanced training system needs to be perfectly adapted to the needs of teachers in the sphere of IT and communications. This calls for the application of contemporary teaching technologies and methods aimed at developing information literacy and the ability to efficiently work with information and use advanced means of communication.

The educational environment needs to offer courses, master classes, and seminars on various aspects of IT and communications that would provide faculty with the opportunity to increase their competence and develop skills and abilities in this subject area.

Another powerful factor in the development of IC competence in teachers is the exchange of experience and knowledge with colleagues and the organization of master classes, discussion platforms, and other forms of communication. This aspect enables teachers to not merely gain new knowledge but exchange experience and create joint projects.

Therefore, the educational environment of a university's advanced training system needs to be maximally adapted to the needs of faculty in the sphere of IT and communications to create optimal conditions for the development of IC competence.

Professional experience

The experience of work in the educational environment can also act as a factor in the development of teachers' IC competence. The more the teacher works, the more they encounter various situations and problems associated with the use of

ICT and the more developed their competence in this area (Beziuleva et al., 2018; Voitovich, 2013).

Professional experience is among the key factors in the development of IC competence in teachers in the internal university advanced training system. A teacher with extensive professional experience possesses not only knowledge in their subject area but also practical skills that can be applied in the context of IT and means of communication (Vvedenskii, 2018, 2019).

The teacher's professional experience can relate to the application of various teaching methods and technologies and organization of the educational process and interaction with students and colleagues. This kind of experience can be a valuable source of information on how to use IT and means of communication efficiently to achieve educational goals.

In the framework of a university's advanced training system, teachers are able to exchange professional experience, gain new knowledge and skills, and learn new methods and technologies to apply in teaching practice. This allows pedagogical staff to improve their IC competence and ultimately become more successful and efficient professionals.

To summarize, professional experience is the leading factor in helping teachers to develop IC competencies and successfully utilize them in practice.

Individual characteristics

The individual characteristics of teachers, such as the level of education, motivation, interests, and personal qualities, are also a factor that can affect the development of IC competence (Khutorskoi, 2003). For example, teachers with a higher education degree may show more interest in learning new IT and developing their competence in this sphere.

Individual characteristics are yet another influential factor in the development of teachers' IC competence in the context of a university's advanced training system. Each teacher has their own unique features that may contribute to

or decrease their ability to efficiently utilize IT and communication tools in the educational process.

To give an example, teachers can have drastically different readiness to use new technology. Some may be willing to experiment and employ new methods, while others may prefer more traditional approaches. Furthermore, individual characteristics can affect the teacher's ability to efficiently communicate with students and colleagues, as well as adapt to varying educational contexts.

The university system of advanced training can help teachers unleash their potential and overcome personal challenges in using ICT. Training in new technology can contribute to teachers' readiness to use IT while training in communication skills can help faculty members improve their ability to efficiently communicate with students and colleagues.

In general, individual characteristics are an inextricable aspect in the development of teachers' IC competence in a university's advanced training system. These factors can impact the teacher's ability to work with IT efficiently or their communication skills, which calls for a personalized approach to training and the development of these competencies.

Socio-cultural factors

Socio-cultural factors, among which are cultural traditions, social stereotypes, and worldviews, can also have an impact on the development of teachers' IC competence. For instance, in a society that greatly values the use of IT in education, teachers can show a stronger interest in developing their competence in the use of ICT.

Socio-cultural factors also play an important part in the development of the IC competence of teachers as part of ta university's advanced training system. Such cultural and social factors as values, convictions, and stereotypes can condition the way teachers perceive and use IT and means of communication in their practice.

For example, different cultures can have different approaches to education and the use of technology. Some cultures may be dominated by a more hierarchical

style of teaching, while others may have a more democratic approach. Furthermore, cultural differences can reflect on the way that faculty members use the means of communication. In this sense, some cultures may adhere to a more formal style of communication and others – to a more informal approach.

Aside from this, the development of teachers' IC competence can be heavily affected by such social factors as the accessibility of IT and the quality of education. In turn, a university's internal advanced training system can help faculty members to overcome these social challenges by providing access to training in new technologies and means of communication, as well as ensuring a high quality of education.

Overall, socio-cultural factors can majorly affect the development of IC competence in teachers within the internal advanced training system of the university. Teaching staff must be ready to work in varying cultural and social contexts, while a university's advanced training system must assist them in obtaining the skills and competencies needed to work efficiently in such conditions.

Accessibility and quality of ICT constitute a considerable factor in developing the IC competence of university faculty in the framework of the internal advanced training system.

For teachers to be able to use ICT efficiently in their professional practice, they need to possess relevant knowledge, abilities, and skills. Apart from that, a critical condition is having access to ICT and quality utilization of this technology in the educational process.

A university's advanced training system has to provide faculty with the necessary knowledge and skills in the use of ICT and offer access to modern technology and software. Among the critical aspects in this sense is the quality of Internet connection and technical equipment, such as computers, laptops, tablets, and mobile devices.

Furthermore, the accessibility of ICT in the educational process can have an impact on teachers' motivation to use it, as well as the formation of their positive attitude towards such technology. Ultimately, the quality application of ICT in the

educational process can strengthen the efficiency of the teaching process and promote the development of ICT competence in teachers.

The study of factors that condition the development of IC competence in teachers as part of the internal university advanced training system has revealed the primary categories of such factors.

A leading factor is the educational environment, which includes interaction with colleagues, specialists, and students, as well as the availability of the tools and technologies necessary for work with ICT. Furthermore, an influential factor is the personal motivation of the teacher to master ICT and develop their respective abilities and knowledge.

Efficient development of teachers' IC competence requires a comprehensive approach that incorporates all stages of this process, from studying the basic principles and technologies of working with ICT and to integrating ICT into the educational process.

Factors of the external environment, such as the accessibility of ICT resources and the availability of a modern technical base and qualified specialists, can considerably affect the efficiency of IC competence development.

The factors of intrinsic motivation, such as personal interest, goal-orientedness, confidence in one's abilities, and striving for professional development also play an important part in the development of IC competence in teachers.

Conclusion

The results of the study indicate that the development of teachers' IC competence as part of a university's internal advanced training system is a multifaceted and complicated process that is contingent on a multitude of factors and requires a comprehensive approach to achieve effective results.

The most efficient way to achieve the established goals is a comprehensive approach that includes all stages in the development of IC competence in teachers

and accounts for all factors involved in it. This approach allows for establishing the conditions necessary for the development of teachers' IC competence in the context of the internal university advanced training system. The described approach ensures consistent and systematic development of IC competence at all stages, from the development and implementation of educational programs to self-assessment and further improvement of IC competence. The fact that this approach accounts for all factors that affect the development of IC competence in teachers, such as the educational environment, individual psychological characteristics, pedagogical experience, and motivation, allows for the most positive results and enables the use of ICT in improving the quality of education.

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