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SOCIAL AND INFORMATIONAL APPROACH IN HIGH EDUCATION IN THE BLENDED LEARNING FORMAT

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Abstract

The article discusses the specifics of an ignored approach to teaching students of a specialized university in the context of blended learning. The basic principles of the approach are based on the formation of general cultural competencies by means of fundamental disciplines, in particular physics. The concept of such an approach lies in the priority of the formation of social competence as a guarantor of the further successful career of a university graduate, and the ability to work with various sources of information within a certain subject area is an indicator of a student's ability to solve social problems by means of professional knowledge and skills. The most productive way to implement the competence-based approach in the blended learning format, the article declares the principle of "inverted learning". Sociology assumes the opportunity to form the so-called soft skills, and fundamental science ensures that students master the necessary professional skills, hard skills. The main source of information in the process of mastering both flexible and professional skills is a person. Students become the main initiators of the search for possible ways to integrate sociology with fundamental disciplines, and the problem-information approach is considered in the article as a set of educational strategies and tactics necessary for the realization of both personal and professional goals.

Keywords: Blended learning, social competence, information competence, social information approach, problem information approach

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1. Introduction

The trend of transition to distance education around the world entails the need for a new approach to the problem of the formation of social and information competencies of secondary school students and students of secondary vocational and higher education. Of decisive importance is not only the volume and quality of knowledge given at the university, but also the level of competence that higher education should provide to prepare graduates for life in modern society (Sokolova, 2017). Social and information competencies are included in the group of general cultural competences, and in a number of studies they are considered as determining ones in the formation of a mobile, competitive personality, ready for self-realization in a professional, social and industrial space (Krasnoshlykova & Koshevaya, 2019; Wunderer & Dick, 2003).

The formation and improvement of social competence is now defined as one of the main goals at all stages of a person's education, since the social order dictates that university graduates have practical skills in the field of economics and social relations, and the ability to resolve negative social problems (Griban, 2015).

Osipova (2003) considers information competence as "the ability to navigate in a vast, rapidly renewing and growing information field, quickly find the necessary information and integrate it into your system of activity, and apply it to solve practical and research problems.

> However, today we have a combination of the incompatible, since social competence is formed and manifested directly in society, in the relationships of people and various communities, and informational competence is focused on isolated work with information through the use of the Internet. In accordance with this, the tendency to change teaching methods in the preparation of a competent specialist - a university graduate, is increasing. “Not only the development of modern professional competences, but also the creation and development of new socio-cultural values, gains importance. (Ponomarev, 2009, p. 51)

2. Problem Statement

We are dealing with a socio-informational approach to education, or problem-informational, since the problem of any fundamental discipline is found directly in the applied sphere, that is, in the surrounding world - society. What, then, are the integrative points of intersection of the planes of problematicity and informational content, as they are determined in the learning process? Naturally, the starting point is a problematic situation. Default activity means solving social problems directly related to professional activity. In this light, the role of disciplines in the formation of key, general cultural and professional competencies also change.

In an agricultural university, for example, sociology is not a major subject, the humanities retain their leading role in the formation of general cultural competencies. As a rule, social competence is formed by the following skills:

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- awareness of their role in the implementation of team projects;
- the ability to use a sociological approach to the analysis of sociological changes;
- the ability to think critically and build a cooperation strategy to obtain a specific result;
- the ability to competently substantiate and present socially significant projects in their professional activities.

Blended education is a term that has already become established all over the world and in its most concise form represents the integration of full-time and distance education. the advantages of classroom teaching and distance or interactive learning, including motivationally designed and accessible courses for students, in which the educational process is a system consisting of components that function in continuous interconnection (Krechetnikov, 2019). Blended learning in foreign practices is often viewed as a new learning technology capable of combining even seemingly incompatible resources of traditional training sessions and e-learning (Bakurova, 2019; Kaleta et al., 2005; Means et al., 2010; Mijares, 2012;). The experience of using blended learning confirms that this format can be used quite effectively in specialized universities, where technical and natural science disciplines are priority.

How does the socio-informational approach relate to blended education? Is it possible to use the means of fundamental disciplines to solve applied issues of the socio-economic sphere with a problem-information approach? To clarify the answer to these questions, it is necessary to separate the concepts of pedagogical strategy in the information-informational approach and pedagogical tactics that make it possible to most effectively implement these strategies. What pedagogical technologies can contain tools for implementing this approach in blended learning?

3. Research Questions

The main research issue is the question of finding universal ways to form soft skills and hard skills without prejudice to the basic knowledge guidelines in the field of fundamental core disciplines. In addition, it is also becoming important to find the necessary set of tools for the formation of general cultural and professional competencies in a blended learning environment.

4. Purpose of the Study

It is necessary to find and substantiate those educational technologies that are capable of integrating fundamental and applied disciplines in the process of forming flexible and professional competencies.

When defining a set of methodological tools that allow integrating personal competencies and professional knowledge, it is necessary to take into account the non-identity of general cultural competencies and flexible skills, as is often considered in the methodological literature.

It is important to determine the skills of a university graduate to correctly substantiate and present socially significant projects in their professional activities

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5. Research Methods

To determine the specifics of the socio-informational approach, it is necessary to consider each of the competencies in detail, decompose it into the main forming constants and find out the possibility of integrating two different pedagogical attitudes. If the information competence is indicated clearly enough and is based on the relationship “person-sources of information”, then there are many interpretations of social competence. Strelkova (2016) gives one of the most capacious, in our opinion, definitions of social competence, defining it as: “...the ability of a person to independently choose a certain model of behavior to achieve the most effective process of interaction in society, based on an adequate attitude to the situation and expediency of actions” (p. 23).

Kovalevskaya (2016) speaks about the insolvency and even “unnecessary” of improving information competence in isolation from social competence as follows: approaches are part of a single information space” (pp. 5-9).

The essence of these competencies in vocational education is considered by scientists as follows: social competence is based on "understanding the social significance of their profession, the desire to carry out professional activities, to search for solutions and the willingness to be responsible for them", and informational competence is an understanding of the essence and significance of information in development modern society, the ability to perceive information, readiness to use the main methods, methods and means of obtaining, storing, processing information (Lobanova et al., 2016).

6. Findings

All figures and tables should be referred in the text and numbered in the order in which they are mentioned. The mastering of new material in the process of studying begins with the formulation of a problem that is of great importance in the field of both sociology and physics. There are two possible ways of defining a problem: the teacher himself designates a social contradiction, the resolution of which is possible only through knowledge of physical laws, or organizes some kind of interaction of students (business game, brainstorming, workshop), the result of which becomes a substantiated social or socio-economic problem. In any case, students independently familiarize themselves with the material, after which the teacher determines the border of ignorance or lack of knowledge. The material necessary for the full study of the topic under study can be selected by the teacher or found by students in various information sources. Discussion of the problem is possible, both after finding information, and during it.

In modern conditions, the "model of blended learning", which is based on the principle of inversion, is more and more relevant. Applied to "higher school".

The concept of inverted learning should be understood as the effective implementation of a distance teaching system, the next step of which is the creation of interuniversity and international education platforms. However, for a rural hinterland, such an approach may turn out to be quite technically difficult; in addition, an increase in the load on the teacher when implementing this approach should be noted as a disadvantage.

To implement and conduct an inverted lesson, the following approximate portfolio is needed: the title and topic of the lesson, materials, videos, presentations, a list of recommended literature and Internet

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sources, a checklist for consolidating the studied material, tasks in the form of tasks on the topic and a set of control tests for self-examination. When preparing the material, the teacher must take into account the competencies from the Federal State Educational Standard for this discipline, taking into account the knowledge and skills for the implementation of which the educational program is designed. The student independently studies theory, watches video, in the presence of a direct connection with the teacher through the information-electronic educational environment (section "dialogue"). The classroom time is intended for joint discussion of the topics under study. In general, the scheme of an inverted lesson looks like this: the topic is formulated (for example: "Natural radioactivity. The law of radioactive decay").

So, when studying the section "Electricity", taking into account the specifics of an agricultural university, the student is given the opportunity to get acquainted with a scientific article describing the possibility of the appearance of a thermally stimulated current in a grain environment (Buzunova & Bonnet, 2020). When studying the properties of dielectrics and dielectric media, the student has the opportunity to study works describing temperature dependence and dielectric losses in cereals (Buzunova & Bonnet, 2020).

As homework, students are given a lecture in audio or video format, after which the student answers a list of questions on the topic and solves the problem, while having the opportunity to contact the teacher. To consolidate the material, the student solves the test, while checking his knowledge. As a result, the student must master the physical meaning of the phenomenon and the law, take into account the limits of their applicability, learn to solve problems and perform the simplest practical tasks. During the classroom lesson, the knowledge gained is applied in practice, fresh ideas on the issue under study are discussed and put forward, which can subsequently be used when students implement a scientific project.

7. Conclusion

As a result, the socio-informational approach in higher education, based on the search and processing of information in a specific discipline in order to solve an acute social problem by drawing up and implementing an informational, applied, design, engineering or creative project, is of decisive importance in achieving educational results.

The formation of social competence occurs directly with the social and informational approach to teaching students. The most productive implementation of the competence-based approach is carried out in the format of blended learning according to the principle of "inverted learning". The most effective pedagogical technologies in this case are: project technology and case-study technology. Sociology assumes the possibility of forming a large number of personal competencies, fundamental science covers the amount of required knowledge through processing the maximum number of sources, including oral ones. From the point of view of information content, a person is the same source as the Internet, the ability to work with it is a sphere of both informational and social competences.

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