FORMATION OF AXIOLOGICAL VIEWS OF BACHELORS DURING THEIR PROFESSIONAL TRAINING IN E-LEARNING CIRCUMSTANCES

© T.M. Nosova, J.D. Ermakova

Samara State Socio-Pedagogical University, Samara, Russian Federation

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Abstract. A sudden sprout of the COVID-19 pandemic all over the world has changed the life of millions of people. Paradigm shift in thinking for adoption of digital learning of learners and teachers is difficult. This is a situation when sometimes it is inevitable necessity in today's circumstances to switch some educational activities adopting digital education. It may be difficult to suddenly changed their mindset and turn to new digital methods of learning and teaching. The aim is to find out the level of effective formation of axiological views of bachelors during their professional training using new e-learning technologies in higher educational institutions and estimate with statistical significance correlations between the level of e-learning and the level of formation of axiological views of bachelors. The result is very logical since the more effective the e-learning, the lower the individual's feeling that his accomplishments are insufficient and that he is not satisfied with them. On the other hand, it has a strong indication that e-learning is one of the factors causing shrinking the formation of axiological views during professional training among students of practical specialties, who need real professional training, dealing with real problems and searching for their solutions.

Keywords: e-learning; axiological views; higher education; professional training; digital education.
ФОРМИРОВАНИЕ АКСИОЛОГИЧЕСКИХ ВЗГЛЯДОВ БАКАЛАВРОВ В ПРОЦЕССЕ ИХ ПРОФЕССИОНАЛЬНОЙ ПОДГОТОВКИ В УСЛОВИЯХ ДИСТАНЦИОННОГО ОБУЧЕНИЯ

© Т.М. Носова, Ю.Д. Ермакова

Самарский государственный социально-педагогический университет, Самара, Российская Федерация

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Аннотация. Внезапный всплеск пандемии COVID-19 по всему миру изменил жизнь миллионов людей. Смена парадигмы мышления учащихся и учителей при внедрении цифрового обучения является сложной задачей. В современных условиях возникает необходимость перевести некоторые образовательные мероприятия на цифровое образование. Трудно внезапно изменить свое мышление и обратиться к новым цифровым методам обучения и преподавания. Цель состоит в том, чтобы выяснить уровень эффективного формирования аксиологических взглядов бакалавров в процессе их профессиональной подготовки с использованием новых технологий электронного обучения в высших учебных заведениях и оценить со статистической значимостью корреляцию уровень электронного обучения и уровень сформированности аксиологических взглядов бакалавров. Результат довольно логичен, поскольку чем эффективнее электронное обучение, тем меньше у человека ощущения, что его достижений недостаточно и что он ими не удовлетворен. С другой стороны, это свидетельствует о том, что электронное обучение является одним из факторов, вызывающих сокращение формирования аксиологических взглядов в процессе профессиональной подготовки студентов практических специальностей, которые нуждаются в реальной профессиональной подготовке, имея дело с реальными проблемами и поиском их решений.

Ключевые слова: дистанционное обучение; аксиологические взгляды; высшее образование; профессиональная подготовка; цифровое образование.
INTRODUCTION

Valuable orientations recognized in society are formed under the influence of many conditions (the ideology of society, socio-economic conditions, the influence cross-cultural clashes) have a socially deterministic character. From the perspective of Russian pedagogy, the basis of the theory of educational values is considered as the main integrative sources: the will to live, love of nature, unity with humanity, consciousness of the spiritual greatness of man. The principle values are:

- eternal — spiritual, religious, moral, labor, aesthetic and environmental;
- incoming — ideological, political, vital and practical orientation;
- stable mental-ethnic — traditions, customs, traits of national character.

Also they can be divided into spiritual and cosmic, national, socio-stratification, natural, moral and aesthetic, ecological, individual and personal [1, 2].

However, modern reality motivates and dictates the importance and necessity of updating the educational paradigm based on an axiological approach that changes the style of interaction between teachers and students and other participants in the educational process, where values take the form of its motive. But the pandemic has also influenced the ways and means of learning. Currently many of the institutions are unable to conduct examination and the face to face teaching learning process has been affected due to severe lockdown. The present situation is expected to continue for long and we all need to be cautious in handling the situation with ease. Keeping in mind the effect of long time shut down and maintaining social distancing, it is imperative to change the learning process by formulating strategic plans with respect to online learning. Digital learning is only an alternative platform to continue higher education at present scenario. (N. Doghonadze, A. Aliyev, H. Halawachy, L. Knodel, A.S. Adedoyin) [3] The cause is a challenge with huge number of educational institutions and diverse group of learners. Before formulation of any strategic initiatives it is important to access the strength and weakness of a system, which can lead to possibilities and limitations. Therefore, it becomes necessary to understand some common problems at present for online learning to be imparted by higher educational institutions. That was the key point in this article, meanwhile the authors focused not only the axiological views forming during the professional training of bachelors, but what way distance learning influence it, having processed the results by the method of mathematical statistics, which allowed us to draw conclusions about their direct interaction, unfortunately not always positive [4, 5]. As the most part of the research based in Samara Socio-Pedagogical University of Natural Geography Faculty, profiles «Biology» and «Chemistry»; «Biology» and «Geography”, the topics of questionnaires, formation of axiological views and other points of professional training deals with this scientific area.

LITERATURE REVIEW

Numerous philosophical, psychological, pedagogical and methodological works of scientists are devoted to the issue of ecological, axiological, human bases in natural science education. (I.N. Ponomareva, V.R. Amineva, V.P. Bezdukhov, N.A. Noskov). They write about the need to create a «mosaic» of values as a condition of existence in a multicultural world. Ways of rapprochement and gradual integration of various
philosophical doctrines of education are needed, as the most important factor to form a single world educational space, the integration of national educational systems in recognition of universal educational and educational ideals and values with the indispensable preservation and support of national characteristics and priorities. At the same time, it is pointed out that «awareness of life as the highest value, the ability to build one’s relationships with nature and society based on respect for life, for all living things, as a unique and priceless part of the biosphere is the basis of educating students» [6–8].

The transformation of the value potential of natural cycle academic subjects into the axiological representation of students takes place with the direct participation of the teacher acting as an intermediary between the content and the emotional and axiological sphere of the student. The process of forming students’ axiological representations according to E.V. Komarova includes «the axiological potential of basic science, the axiological potential of the educational subject, the axiological representation of the teacher, the axiological representation of the student» [9].

Various dictionaries define axiology as the science of values. In the pedagogical dictionary, axiology is understood as a philosophical doctrine, which is based on a system of values for each individual, based on his desires, needs, formulated based on the goals and objectives facing a person in a certain period of time [3].

**MATERIALS AND METHODS**

Designing a structural and functional model of the system for the implementation of the educational component of biological education, N.M. Semchuk, I.B. Bicheva, O.M. Filatov, O.E. Drozdova focused out that it must meet the requirements of openness, humanization, flexibility, axiological, cultural, prognostic components of adaptation to the natural, ecological and socio-cultural characteristics of the region. According to the author, axiologization determines the requirements for enriching biological content with humanistic, ecological, value ideas, familiarization of students with the stages of spiritual and practical development of the human world, consideration of the essence of nature, its values, the problems of formation, the system of universal values, the use of evidence-based justification of the absolute value of human life and health. Saturation of the educational content with value ideas, contribute to the transformation of rational scientific knowledge into emotional, personally significant [10–12].

In the content of ecological and axiological concepts, a significant place is occupied by the subject «Theory of Evolution», which is a scientific theoretical and value-worldview generalization and development of a whole complex of concepts studied in biology lessons. Considering the living, life, as organization, adaptation and evolution; substance, energy and information in the process of studying this discipline, students get acquainted with the levels of its organization (cellular, organismic, population-specific, biogeocenotic, biospheric), as well as the main processes of evolution and vital activity (microevolution, macroevolution), their patterns. Getting acquainted with their works, trainees consider selection as a leading factor in evolution, the formation of adaptations, the transformation of the gene pool of populations under the influence of natural selection.
In the course of studying the subject, they note the variety of manifestations of variability in the organic world, the role of hereditary variability in evolution, consider mutations as the main material for the evolutionary process, where the unit of microevolution is the population, the factors that change its gene pool are analyzed. At the same time, the attention of the trainees is focused on the main category of evolution — the Species, its structure, criteria, ways of speciation in nature, biological diversity of species, their relationships as forms of struggle for existence and natural selection are considered.

The questions of the origin of man, the problems of anthropogenesis, the progressive orientation of the historical development of life, its uniqueness, uniqueness, as well as the pace of evolution, its irreversibility, the reasons affecting the speed of the evolutionary process are studied. The general system of bioecological concepts was developed in the works of A.J. Cortez, V.A. Slastenin, S.V. Vlasova, N.D. Andreeva, S.V. Abramova [13–16].

The problem development takes place on the basis of the establishment of separate relationships of concepts with other concepts and their generalization to a system; the use of logical techniques (comparison, analysis, synthesis, abstraction, modeling); the use of logical operations: definition, generalization, limitation of concepts, as well as the construction of judgments; deduction of conclusions, identification and resolution of contradictions (L. Grinkrug, E.A. Klimov) [17, 18]. However, the construction of an integral system of ecological and axiological concepts is a complex process that requires justification, its methodological basis, which directly affects the effectiveness of its implementation. The theory of reflection, which is the basis of the philosophical theory of cognition, should be considered as a general methodology for constructing a system of ecological and axiological concepts. This is due to the consideration of the learning process as one of the types of cognition, as a process of reflecting the surrounding objective reality. Justifying the system of ecological and pedagogical education of biology students at a pedagogical university, N.D. Andreeva, F.L. Mazitova, I.G. Korneva, V.P. Bezdukho, I.M. Shadrin define a system of values, which she divides into universal, ecological and professional pedagogical, noting at the same time that environmental values largely coincide with universal, since environmental values have universal significance [14, 19].

RESULTS

The design of the system of ecological and axiological concepts is based on: systemic, integrative, personality-oriented, cultural, activity-based, ecological and axiological approaches. As a result of the conducted research by S.V. Abramova, groups of ecological and axiological concepts are identified:

- about nature (values of life; values of nature; values of biological diversity; worldview values of nature; aesthetics humanistic values of nature);
- about a person (self-worth of a person; spiritual value of a person; man and culture; self-knowledge and self-development of a person; the value of a person as a natural component of nature; the attitude of a person to nature);
- about society (harmony of relations with nature; material and spiritual heritage of mankind; universal values; humanistic experience of mankind; humanism as the basis of sustainable development of society) [13, 20].
In the 2021–2022 academic year, we surveyed 50 undergraduate students, graduates of the Samara Socio-Pedagogical University of Natural Geography Faculty of the training direction 44.03.05. «Pedagogical education» (with two training profiles), profiles «Biology» and «Chemistry»; «Biology» and «Geography» after they completed practical training in secondary schools.

The purpose of the survey was to find out the influence of e-learning on the formation of students’ value perceptions, as well as to determine their value perceptions in the context of preparation for future professional activity and to find out how e-learning technics influence the level of forming axiological views in professional training in pandemic reality. The content of the questionnaire included questions of terminal values (life, health, beauty, nature, equality) and instrumental values (kindness, striving for truth, freedom, perseverance, justice, creativity):

1. Do you agree that the content of the subject «Biology» is aimed at the formation of students’ value perceptions:
   a) «definitely yes» — 83%;
   b) «rather yes than no» — 17%;
   c) «definitely no» — 0%.

2. To form ideas about what values, in your opinion, the content of the educational subject «Biology» is oriented, rank them by importance:
   – the value of nature as a universal property (80%);
   – the value of nature as an inexhaustible source of well-being (65%);
   – the value of diversity of species of living organisms (74%);
   – the value of preserving the natural habitat (83%);
   – the value of self-improvement and self-development of a person (45%).

Ranking by their significance showed the positive attitude of future teachers to nature, manifested in the awareness of it as a habitat, as a universal heritage and the value of diversity of species.

3. Arrange in order of decreasing importance the factors influencing the formation of students’ value perceptions: friends, society;
   the content of the educational material (information from the history of science; famous personalities, their lives; views, successes, stories of discoveries); family, school, teacher. Results — family, friends, society, school, teacher.

4. What do you think is the object of value meanings in the modern school course «Biology» in general: a) society; b) nature; c) man. Results — society — 10%, nature — 71%, man — 19%

5. Rank the objects of value components in order of importance for humanity: a) society; b) nature; c) man. Results — nature, man, society — 58%; man, nature, society — 21%; man, society, nature — 11%; society, nature, man — 10%.

According to students, the value of all life on Earth and life itself is important; family values; values of a healthy lifestyle and maintaining a healthy spirit; patriotic values, love for the native land, its uniqueness.

- the allocation of basic values and value ideas, orientation, both on the unity of humanity and on its indissoluble connection with nature;
- recognition of the individuality of the individual and its values;
- taking into account the relationship of cognition and spiritual and moral meanings of the individual;
- reliance on personal perception of life, nature and man as the highest values.
At the same time, they noted that «for each child, the significance of certain factors is different, therefore, it is impossible to form a single scale of values «ascending» or «descending» for all, literature, films and other cultural works will have a greater influence on one student than peers, and vice versa on another student. They consider family and close environment (for example, friends) to be the key factors influencing the formation of life values, other factors include school, works of art, life experience and other social ties».

4. «Biology contributes to the formation of the values of wildlife and all its components (after all, biology is the science of life), including man as one of its works».

5. «For me, an important value is the preservation and successful functioning of the entire natural complex of the planet Earth with minimal losses for the diversity of life and the speedy resolution of global problems of modern human civilization».

Thus, the process of professional education of bachelors is aimed at the formation of value orientations, including socially significant views, value-oriented attitudes, motivated-value beliefs, which serve as the basis of the ecological-axiological approach, saturation of its philosophical, ideological, moral, humanistic ideas, on the basis of which the value orientations of the individual are formed, motivating the activity and behavior of a person, a future professional.

Due to pandemic partially the research was held on-line that give up chance to check the effectiveness of using distance learning in forming axiological views of bachelors during their professional training (Table 1).

There is a negative correlation with statistical significance at the level of significance (α ≤ 0.01) between the two main variables, the level of e-learning on the one hand, and the level of formation of axiological views in professional training on the other. It also appears from the same table that there is a negative correlation between all fields of e-learning and all fields of professional training. It means that the higher the level of e-learning, the lower the level of formation of axiological views. And it is statistically significant, means that the link between the variables is real and not the result of chance.

<table>
<thead>
<tr>
<th>Areas</th>
<th>Emotional Exhaustion</th>
<th>Personal Accomplishment</th>
<th>Level of formation of axiological views in professional training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>−0.19</td>
<td>−0.26</td>
<td>−0.27</td>
</tr>
<tr>
<td>The effectiveness of the educational process</td>
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<td>−0.38</td>
<td>−0.36</td>
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<tr>
<td>Student achievement assessment</td>
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<tr>
<td>The effectiveness of e-learning</td>
<td>−0.36</td>
<td>−0.38</td>
<td>−0.43</td>
</tr>
</tbody>
</table>

Table 1

Correlations between the level of e-learning and the level of formation of axiological views of bachelors during their professional training
DISCUSSION AND CONCLUSION

There is a strong indication that e-learning is one of the factors causing shrinking the level of formation of axiological views during professional training among students of practical specialties, who need real professional training, with real problems, mistakes, solutions. This may be because the experience of e-learning is a new experience, as its use was previously very limited, and it appeared suddenly, forcing faculty members to prepare themselves to deal with it quickly, which caused various types of psychological and physical pressures, in order to keep up and not waste time. Also, the skills of our teaching staff in dealing with e-learning were not at the required level, forcing them to make more effort and train in a short time to master the process of dealing with educational platforms, how to upload materials, prepare assignments, exams, etc. In addition to the problems that many faced during lectures and exams, which require solutions that may sometimes be immediate. There is no doubt that all these factors have caused many to feel tired, dissatisfied with personal accomplishments, and at other times feeling indifferent and give in. Hence, the negative correlation between the two variables may be a logical and natural result, and it needs contemplation by the administrations universities and by teachers themselves to improve the reality and raise it to the desired level. The highest correlation was between the fields of «e-learning effectiveness» and «personal accomplishments», which was moderate. This result is very logical since the more effective the e-learning, the lower the individual’s feeling that his accomplishments are insufficient and that he is not satisfied with them. The more effective the e-learning, the more teachers feel that they can deal with students’ problems better, feel more active, want to achieve better, work to create an environment that is suitable for them to accomplish their work, and deal with others calmly. All of this will lead to strive towards achieving the goals and ambitions. The lowest negative correlation between fields was between the fields of «infrastructure» and «emotional exhaustion» which was at a low level. Perhaps this result is because the infrastructure in universities are quite good as indicated by the sample members when they answered the first question, where the level of their estimates for the field of infrastructure was high. That is, the provision of educational platforms, Internet networks, and technical support related to the e-learning process is appropriate. Most teachers and students have enough technical resources at home. Therefore, the link between infrastructure and the field of emotional exhaustion, despite its presence, is a low negative correlation, meaning the more the infrastructure improves in universities, the lower feel like they exhausted their energies, tension, emotional exhaustion, and lack of confidence in their professional career and its continuity. The above results indicate, beyond any doubt, that e-learning is one of the factors that may affect the level of formation of axiological views among bachelors during their professional training.
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Information about the authors

Tamara M. Nosova, Doc. Ped. Sci., Professor of Biology, Ecology and Teaching Methods Department, Samara State Socio-Pedagogical University, Samara, Russian Federation. E-mail: nosova@pgsga.ru

Julia D. Ermakova, Cand. Ped. Sci., Associate Professor of Foreign Languages Department, Samara State Technical University, Samara, Russian Federation. E-mail: ermjul@yandex.ru
Информация об авторах

Тамара Михайловна Носова, доктор педагогических наук, профессор кафедры «Биология, экология и методика обучения», Самарский государственный социально-педагогический университет, Самара, Российская Федерация. E-mail: nosova@pgsga.ru

Юлия Дмитриевна Ермакова, доцент кафедры «Иностранные языки», кандидат педагогических наук. Самарский государственный технический университет, Самара, Российская Федерация. E-mail: ermjul@yandex.ru