

МЕТОДОЛОГИЯ И ТЕХНОЛОГИЯ ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ / METHODOLOGY AND TECHNOLOGY OF VOCATIONAL EDUCATION

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KEY DIRECTIONS IN MODERN TEACHER TRAINING: INTEGRATION OF HARD AND SOFT SKILLS DEVELOPMENT

Research article

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Abstract

The requirements to the personality development in modern technical or rather digital environment make the research task of integrated development of hard and soft skills in future teachers of due relevance. The review of scientific and practical publications proves that pedagogical university graduates are not prepared for the development of students' soft skills, having quite a low level of such skills themselves. The objective of the present study is to identify a number of pedagogical conditions that can make the process of hard and soft skills' development in future teachers effective and to substantiate a practical design of the methodological content for teacher-training departments. The research methods used include analysis of theoretical and practical observations in the field of teacher-training, of the social and labor market demands for a modern teacher in the course of sustainable development society, of the university course curricula and educational content of foreign-language teacher training departments, and pedagogical design. The methodological base of the research is presented through the philosophical concepts of the identity of natural and social processes and their interdependence, the philosophical comprehension of education and the systematic approach to the professional education. As a result, the new approach to the content development and design of educational programs offered in the paper is much broader than the traditional teacher's multi-functionalism, in which the integrity of the profession is reduced to a set of functions that are demanded in certain conditions. In conclusion, definite and realistic measures to be taken in order to achieve the Sustainable Development Goals are offered.

Keywords: soft skills, hard skills, integrated teacher training, sustainable development, environmentally-centered professional activity.

ИНТЕГРАЦИЯ РАЗВИТИЯ ПРОФЕССИОНАЛЬНЫХ И УНИВЕРСАЛЬНЫХ КОМПЕТЕНЦИЙ ПРИ ПОДГОТОВКЕ СОВРЕМЕННОГО УЧИТЕЛЯ

Научная статья

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Аннотация

Требования к личностному развитию в современной технической или, скорее, цифровой среде актуализируют исследовательскую задачу комплексного развития жестких и мягких навыков у будущих учителей. Обзор научно-практических публикаций и регламентирующих документов доказывает, что выпускники педагогических вузов не вполне подготовлены к развитию метапредметных и личностных компетенций школьников, имея достаточно низкий уровень сформированности мягких навыков. Целью настоящего исследования является выявление ряда педагогических условий, которые могут сделать процесс развития профессиональных и универсальных компетенций у будущих учителей эффективным, и, на этой основе, обоснование нового подхода к проектированию методического содержания для педагогических факультетов. Использованные методы исследования включают анализ теоретических и практических наблюдений в области подготовки учителей, требований общества и рынка труда к современному учителю в контексте общества устойчивого развития, анализ учебных планов и рабочих программ университетских курсов и содержания образования в рамках программ подготовки учителей иностранных языков, а также педагогическое проектирование. Методологическая база исследования представлена философскими концепциями тождества природных и социальных процессов и их взаимозависимости, философским осмыслением образования и системным подходом к профессиональному образованию. В результате отмечено, что предлагаемый подход к разработке содержания и дизайну образовательных программ гораздо шире традиционного учительского мультифункционализма, при котором целостность профессии сводится к набору функций, востребованных в определенных условиях. В заключении предлагаются определенные и реалистичные меры, которые необходимо принять для достижения целей устойчивого развития.

Ключевые слова: универсальные компетенции, профессиональные компетенции, интегрированная подготовка учителей, устойчивое развитие, экологически ориентированная профессиональная деятельность.

Introduction

For many countries the strategy of sustainable development of society became a guideline for decision-making in the field of social policy, solutions to environmental and economic problems after the 1992 UN Conference in Rio de Janeiro. It is viewed as a trend in society development, under which the satisfaction of the needs of the current generation does not jeopardize the satisfaction of the needs of future generations. Since then, international meetings have been aimed at discussing different aspects of the adoption of the conception of sustainable development of society in various formats; such meetings have been held on a regular basis.

In 2015, a Summit on Sustainable Development was held. One of its results was the adoption of the official document “Transforming our world: the 2030 Agenda for Sustainable Development”.

Its significance for determining probable scenarios for the development of the vocational educational system is related to the fact that one of the goals planned to be achieved by 2030 was to ensure comprehensive quality education and to promote lifelong learning opportunities for all [13]. This document implies the development and elevation of the intellectual and spiritual principle in each person, while meeting the reasonable material needs of all people on the planet.

The main tool for achieving and establishing such a world order is the most developed science, culture and the system of education and personality development that is adequate to these tasks [14].

It should be noted that education was originally meant to have an important role in providing sustainable development [2], since it is assumed that there would be a new state of society “noosphere” (sphere of mind). Moral and spiritual values and knowledge of man living in harmony with the environment will be a key measure of the national wealth in this society.

Researchers share a narrow and broad context of sustainable development. N. N. Moiseev (1999), N. S. Kasimov and V. S. Tikunova (2003) point out that the narrow context implies an environmental component whereas the broad context is associated with a new type of the world community functioning [6], [4]. Accordingly, the tasks set for the system of vocational training are determined on different grounds. On the one hand, it is preparation of future employees for the professional activity in the sphere of environmental protection. On the other hand, it is a change of the ideological guidelines. As it was proved by academician A.P. Nazaretyan (2014), in the period of powerful production technologies, it is the ideological humanitarian component that contributes to the preservation of society and civilization as a whole for future generations [8].

The key problem of the research is related to the personal level of changes necessary for the formation of the society of sustainable development. In this respect, we agree with the authors who believe that social problems, associated with the need to get adapted to new conditions of interaction with the natural environment, are global by nature, but they can be solved exclusively through the actions of each individual.

Research methods and principles

The research is conducted in a philosophical design. We base on the axiological understanding of professionalism, the concept of which is developed by E.A. Alexandrova (2017) [7], V.A. Slobodchikov (2014) [8], V.V. Serikov (2012) [9] and others. The analysis of the existing models of professionalism, created by V.I. Blinov (2010) [10], E.A. Maximova (2012) [11], M.V. Nikitin (2016) [12] is carried out in order to identify specific ways to improve the quality of teacher training, so that young teachers are ready for the formation of sustainable development society. To achieve this goal, a conceptual and socio-philosophical analysis of the current social and economic situation and of the accumulated experience of building a professional educational system has been fulfilled. Thus, the methodological base of the research is presented through philosophical concepts of realizing the identity of natural and social processes and their interdependence. It is presented by the research work of N.N. Moiseev (1999) [4], A.P. Nazaretyan (2014) [6], N.S. Rozov (1994) [13], and others. Moreover, the philosophical comprehension of education (I.M. Osmolovskaya (2007) [14], S.A. Pisareva and A.P. Tryapitsyna (2016) [15]) and the systematic approach to the professional education (V.D. Mogilevskiy (1999) [16], N.V. Kuzmina (2002) [17], E.N. Knyazeva and S.P. Kurdyumov (1993) [18]) was revealed to show that trends in teacher training depend on numerous aspects of social development.

In addition, to describe the current model of the teacher’s professionalism and to identify ways of its updating in the context of sustainable development, we have made the comparative and structural analysis of the labor market requirements, the employers’ and society demands, as well as the contextual analysis of the legal framework in the field of education and labor regulation.

Main results

We consider sustainable development to be improvement in man’s relations to society, nature, and professional activities, but not new ways of doing business, new technologies or management methods. The system of teacher training education, in this regard, is a way to ensure such development, since it not only forms the professional qualities of future specialists, but also lays down social and cultural models of behavior, defines the foundations of their axiology, sets the direction of their cultural activities, their behavior in society in the broadest sense.

N. S. Rozov (1994) formulated this idea in the context of ensuring sustainable development through the value-based consciousness [12].

We believe that the system of teacher-training education should give an adequate response to the necessity to develop the creative potential of a student due to the socio-economic concept of sustainable development. It should be a new vision of the teacher’s professionalism, as well as the processes of maintaining qualifications at an up-to-date level.

In particular, in the model of pedagogical professionalism, the central place should be occupied by a system of anthropological values that refract the requirements for the teacher that are fixed in the work functions. These requirements cause changes in personal characteristics expressed by the corresponding orientation and characteristics of the practical activity, determined by the teacher’s readiness. The system of anthropological values includes cultural and historical memory, spiritual and moral needs, subjectivity in professional activity and reflection [5], [9]. We believe that this system of

requirements incorporated into the content of teacher-training education should be singled out as *the first pedagogical condition* for our model of integrated teacher training.

The proposed approach to the definition of professionalism is as follows: external requirements, imposed on the teacher by the state, society, the market, and the university, as reflected in the specific functions of the National Professional Standards [7], [11] and the internal qualities and skills of an intending teacher that make them ready to carry out the professional duties in the development of students' knowledge, abilities and soft skills, as well as in the development of students personality as a whole, their spiritual and moral constituent [9], [10]. The functional content of the requirements, passing through the system of anthropological values of the teacher, is transformed at the personal level into the corresponding orientation of the teacher, thus, comprising *the second pedagogical condition* of the effective use of integrated teacher-training.

In practice, it is expressed in a motivated willingness of a teacher to carry out professional pedagogical activities. The aim of this activity is not only to teach the students something connected with the subject matter of a particular field of study, but also to develop the student's soft skills, including their critical thinking as the priority metacognitive skill, communicative competence, story-telling and creative thinking, etc. Thus, bearing in mind the necessity to train intending teachers for such professional tasks, we should definitely develop all the necessary soft skills in future teachers themselves (this is practically supported by the requirements of the educational standards in what is presented there as universal competences). Consequently, it should be noted that the main tasks the high school is facing today is necessary for:

- reproduction of knowledge,
- generation and transmission of new knowledge,
- formation of an intellectually active personality,
- creation of such educational environment that will cater for self-determination and individual development,
- ensuring maximum opportunities for the selection and implementation of individual educational trajectories.

The solution of the tasks set should contribute to the formation of a society of qualified, dynamic, creative individuals capable of self-development and of intellectual activity as a form of accumulation, systematization and generation of new knowledge. Thus, in the context of the requirements of today's social development and relevant educational standards, teacher-training presupposes designing an activity-based integrating educational model, which should also be included into the list of particular *pedagogical conditions* contributing to the development of a modern teacher possessing a number of soft and hard skills developed through the integrating model.

It is assumed that if the teacher takes into account the educational opportunities of the cultural and historical environment in the realization of this job function, this will contribute to the internalization of social and cultural practices and the teacher's readiness and willingness to update the content of educational programs on their basis. At the same time, teachers have a particular need in very concrete support that is close to teaching and the schools' objectives. They no longer ask for abstract policies [15].

Modern society expects the teacher to show social responsibility. From this perspective, as it is seen through practice, professional requirements and in research publications, even the sense of self-responsibility and self-esteem are important skills needed for a teacher [16]. To perform the teaching activity successfully not only generalized competency is of great value, but sub-skills and personal qualities as well [17]. It is the National Curriculum and legislation in the field of education of a country, on the one hand, and social culture and norms, on the other hand, set the requirements and expectation for teachers [18]. Those responsible for professional teacher-training (governments, educational authorities and teacher-training universities) should definitely work out "a systematic and structured layout" to help "mapping the expectations and educational perception of new teachers" [19].

In fact, the expectations of the society are partly expressed in the job function associated with the career guidance activities of teachers. Moreover, current changes of the society itself find their reflection in changing expectations and, as a result, roles of teachers [20].

In preparing future teachers, it is necessary to develop their awareness of the most vital issues in regard to sustainable development of the society, including environmental issues [21]. Although perspective teachers display quite high level of understanding of what sustainable development is and what is the role of education here (as, for example, is the case in Turkey [22]), it is still a matter of validating the improvements introduced into teacher-training curricula so that new teachers have positive attitude to "raising environmental awareness, equipping individuals with positive attitudes and values, and developing their skills to ensure that appropriate behaviors emerge" [22].

We believe that if the active social position of the teacher reflects his/her spiritual and moral needs, this will add the value meaning to the personal experience and will give an opportunity to stimulate the development of students' personal qualities at a different content level. This is equally important for adults.

The labor market demands teachers to get advanced training, which is reflected in the National Professional Standard through the job function "Organizing and conducting the work-study process and supporting a group (course)". The subjectivity of professional activity, which is an anthropological value, contributes to the orientation of the teacher to the innovation in the professional activity. It will further turn into his motivated readiness to expand, vary and update the scope of his professional activity. Actually, considering this aspect of a teacher-training process, we can claim that this *is another condition* in developing future teacher's integrated professionalism.

Finally, in any educational institution, the teacher is required to maintain the updated qualification level. The corresponding job function of the occupational standard can be defined as ensuring the implementation of educational programs at a high scientific and methodological level. Provided this function is carried out based on reflection, the teacher develops a focus on self-realization. It becomes the basis of the teacher's readiness for creative self-realization in the profession, thus, making this constituent *another crucial condition* of teacher training.

Discussion

In the previous works of the authors, the task of training professional personnel for a sustainable development society was solved in the narrow context; that is, through the formation of an environmentally oriented reflexive thinking of future specialists [1]. The ideal embodiment of an environmentally oriented consciousness is the integrity of the very existence of man, human interaction with nature, the sense of man's development.

It is quite natural to expect that the substantial basis for the formation of an environmentally oriented consciousness of future teachers should be an increase in the volume of environmental information.

Undoubtedly, environmental problems should be studied both in the form of separate disciplines and in the form of interdisciplinary courses. However, the prior direction for changing the content of professional education is not just to strengthen the block of environmental disciplines, but to form a system of scientific knowledge about the process and results of interaction between man and nature as our environment. The emphasis on meeting the needs of the individual as the goal of his/her professional activity is gradually transferred to the harmonization of relations between society and nature. Social responsibility is perceived by teachers, including intending teachers, as a key factor in the transition to sustainable development [3].

Professional education involves the independence of students in the formation of an axiological attitude to environmental issues, which is later transformed into eco-oriented principles of conducting professional activities. The practical provision of a value-based attitude to environmental issues is partly connected with reflection in the educational process.

Reflection is understood to be a continuous process of self-evaluating and interpreting, supplemented by the understanding of how this behavior is seen by others and how it is reflected on them. The "others" may be an individual, society, our students or nature.

Reflexive teaching, that is, the one in which reflection accompanies each stage, is time-consuming. Meanwhile, optimization of educational programs actually results in a reduction of the number of periods allotted to disciplines and courses. Hence, reflection is actually reduced to the assessment of the activity efficiency. The achievement or non-achievement of the goals set is measured, while the detection of problem situations, is often inaccessible to students due to lack of reflexive skills. As a result, there is a high probability of mastering the profession 'technically', without seeing its integrity with the surrounding world. Consequently, the separation of man from nature may increase.

In order to develop the educational content in teacher-training departments, that will be designed in accord with the identified conditions, we created a textbook "Integrated Teacher Training". The twofold aim of the textbook is to train intending teachers of any subject in the following directions: developing such universal competence as the communicative one (through completing tasks in English) and simultaneously developing such soft skills as critical thinking, story-telling skills, and interaction skills. To achieve the aims set we selected a number of texts from open sources (mass media, scientific publications, other sources that allow the use of materials with references) in English, dedicated to the problems of education, educational systems, teaching methods, and upbringing. For these texts, varied tasks have been developed, including such activities as:

- restoring the logical sequence of the text;
- establishing cause-and-effect relationships;
- selecting arguments for ideas;
- formulating arguments;
- creating a cluster;
- creating and filling out a table;
- double diary;
- TASK (Thesis – Analysis – Synthesis – Key) analysis, etc.

Another group of activities offered for future teachers is connected with the ability to select a good set of ideas/pictures/words for composing a story with a pedagogical effect. On the one hand, such a task helps to develop story-telling skills of both teachers and students; on the other hand, their discussions based on the stories composed should help develop students' moral and aesthetic values, attitudes and opinions, their decision-making skills and an ability to make up the reasonable choice. Thus, the intending teachers are offered a set of pictures and given tasks to compose a pedagogical story. A pedagogical story means a story that a teacher can compose together with their students, with a certain moral and value meaning, a story that has an educational effect.

Another important skill that we propose to develop in intending teachers with the help of the textbook is multicultural competence. Students are given small texts on some cultural aspect of four different countries. Mostly, the texts offered are devoted to educational systems, assessment systems, examination systems, issues related to education, relationships in an educational institution, types of schools, etc.

Finally, to develop interaction skills, students are offered a number of activities aimed at making up dialogues. The supporting tasks, including the necessary vocabulary, speech etiquette phrases, the structure of the dialogue, pre-, while- and post activities are composed.

All in all, we believe that both the structure of the textbook and the selection of the tasks offered, as well as the content of the texts and visual materials used, may lay the foundation for further development of the curriculum in the sphere of teacher training.

Conclusion

The analysis has shown that in discussions about the role of education in the formation of the concept of sustainable development, the terms 'environmental education' and 'education for sustainable development' are often identified. The focus is on changing the content of teacher training from the one that aims at developing primarily professional (subject-matter) skills into the content aimed at developing the integrated model of a teacher possessing a number of key hard and soft skills developed at a sufficient level. However, it is obvious that the huge potential lies in the influence of teachers on the worldview

of future specialists. Throughout the analyses of the educational, professional, standards, research papers and practical observations, we singled out a number of pedagogical conditions that contribute to the efficient development of a future teacher by means of an integrating approach. Such conditions include:

- developing a system of anthropological values that refract the requirements for the teacher;
- providing the educational environment where the functional content of the professional requirements, passing through the system of anthropological values of the intending teacher, is transformed at the personal level into the corresponding orientation of the teacher;
- designing an activity-based integrating educational model;
- developing the intending teacher's orientation to the innovation in the professional activity that will further turn into their motivated willingness to expand, vary and update the scope of the professional activity;
- developing reflective skills of the teacher and their readiness for creative self-realization in the profession.

As a result, a serious correction of the existing educational curricula of teacher training universities is required. It should be carried out on the basis of an increase in the share of courses aimed at the formation of basic universal competencies (soft skills), the development of reflexive skills, spiritual and moral value orientations of the teacher. Such corrective and methodological activity will directly contribute to the achievement of the Sustainable Development Goals.

Конфликт интересов

Не указан.

Рецензия

Все статьи проходят рецензирование. Но рецензент или автор статьи предпочли не публиковать рецензию к этой статье в открытом доступе. Рецензия может быть предоставлена компетентным органам по запросу.

Conflict of Interest

None declared.

Review

All articles are peer-reviewed. But the reviewer or the author of the article chose not to publish a review of this article in the public domain. The review can be provided to the competent authorities upon request.

Список литературы / References

1. Transforming our world: the 2030 Agenda for Sustainable Development. — URL: <https://sustainabledevelopment.un.org/post2015> (accessed: 13.11.2024)
2. Ünal F. Citizenship Education for Adults for Sustainable Democratic Societies / F. Ünal, H. Kaygın // Sustainability. — 2020. — № 12. — P. 56.
3. Чайкин В.Н. Образование как фактор устойчивого развития России / В.Н. Чайкин // Форум. — 2016. — № 1(7). — С. 7-9.
4. Моисеев Н.Н. Экология и ноосфера / Н.Н. Моисеев // Экология и жизнь. — 1999. — № 3. — С. 10.
5. Образование для устойчивого развития / Под ред. Н.С. Касимова, В.С. Тикунова. — Смоленск: Маджента, 2003. — 158 с.
6. Назаретян А.П. Воспитательный потенциал синергетики: гипотеза техно-гуманитарного баланса / А.П. Назаретян // Научный результат. Серия Психология и педагогика. — 2014. — № 2. — С. 98-103.
7. Александрова Е.А. Формирование экологически ориентированного сознания в профессиональном образовании / Е.А. Александрова, Е.А. Максимова // Этнокультурное образование в современном мире: Сборник научных статей по материалам Всероссийской очно-заочной научно-методической конференции, Саратов, 18—20 апреля 2017 года. — Саратов: Перо, 2017. — С. 17-23.
8. Слободчиков В.И. Научно-технологические уклады и подходы в профессиональном образовании / В.И. Слободчиков, С.М. Зверев // Введение в антропологию образования. — М., 2014. — Вып. II. — 190 с.
9. Сериков В.В. Сможем ли мы подготовить компетентного педагога? Парадоксы и перспективы педагогического образования / В.В. Сериков // Известия Волгоградского Государственного педагогического университета. — 2012. — № 11 (75). — С. 30-33.
10. Блинов В.И. Стандарт результата (о новых Федеральных государственных стандартах профессионального образования) / В.И. Блинов // Профессиональное образование в России и за рубежом. — 2010. — № 1 (2). — С. 5-14.
11. Максимова Е.А. Повышение квалификации в системе непрерывного профессионального образования / Е.А. Максимова // Вектор науки Тольяттинского государственного университета. Серия: Педагогика, психология. — 2012. — № 1 (8). — С. 206-208.
12. Никитин М.В. Полиструктурная модель колледжа — образовательного комплекса: характеристики конкурентоспособности / М.В. Никитин // Профессиональное образование и рынок труда. — 2016. — № 2. — С. 10-15.
13. Розов Н.С. Устойчивое развитие и ценностное сознание / Н.С. Розов. — Новосибирск: ИФиПр СО РАН, 1994. — 32 с.
14. Осмоловская И.М. О парадигмах в педагогике / И.М. Осмоловская // Инновации в образовании. — 2007. — № 2. — С. 20-29.
15. Тряпицына А.П. Ориентиры обновления содержания профессиональной подготовки будущих учителей / А.П. Тряпицына, С.А. Писарева // Человек и образование. — 2016. — № 3 (48). — С. 12-18.
16. Могилевский В.Д. Методология систем: вербальный подход / В.Д. Могилевский. — М.: Экономика, 1999. — 251 с.
17. Кузьмина Н.В. Понятие «педагогической системы» и критерии ее оценки / Н.В. Кузьмина // Методы системного педагогического исследования. — М.: Народное образование, 2002. — С. 7-52.
18. Князева Е.Н. Синергетика: начала нелинейного мышления / Е.Н. Князева, С.П. Курдюмов // Общественные науки и современность. — 1993. — №2. — С. 38-51.

19. Мельник Т.Е. Концептуальные положения формирования педагогического образования в интересах устойчивого развития / Т.Е. Мельник // Вестник ТГПУ. — 2013. — №1 (129). — С. 69-71
20. Estrada-Vidal L.I. The Differences across Future Teachers Regarding Attitudes on Social Responsibility for Sustainable Development / L.I. Estrada-Vidal, M.C. Olmos-Gómez, F. Ruiz-Garzón // International Journal of Environmental Research and Public Health. — 2020. — № 17. — P. 5323
21. Профессиональный стандарт «Педагог профессионального обучения, профессионального образования и дополнительного профессионального образования»: приказ Минтруда России от 08.09.2015 № 608 Н. — URL: <https://base.garant.ru/71202838/> (дата обращения 13.11.2024)
22. Nikitina G.A. Complex Competency-Based Model of the Intending Foreign Language Teacher / G.A. Nikitina // Perspectives of Science and Education. — 2021. — № 5(53). — P. 223-237. — DOI: 10.32744/pse.2021.5.15.
23. Nikitina G. A. Pedagogical Conditions of the Moral and Aesthetic Development of Learners in Foreign Language Lessons / G.A. Nikitina, V.V. Ryzhova // Russian Linguistic Bulletin. — 2019. — № 2(18). — P. 27-30. — DOI: 10.18454/RULB.2019.18.2.3.
24. Проект профессионального стандарта «Педагогический работник высшего образования». — URL: https://profstandart.rosmintrud.ru/obshchiy-informatsionnyy-blok/reestr-vedomleniy-o-razrabotke-peresmotre-professionalnykh-standartov/index.php?ELEMENT_ID=113528 (дата обращения: 13.11.2024)
25. Waltner E. What Teachers Think and Know about Education for Sustainable Development and How They Implement it in Class / E. Waltner, K. Scharenberg, Ch. Hörsch [et al.] // Sustainability. — 2020. — № 12. — P. 1690.
26. Srinivasan R. A Relationship Between Self-Esteem and Teaching Competency of Prospective Teachers / R. Srinivasan // Shanlax International Journal of Arts, Science and Humanities. — 2020 — № 7. — P. 44-48. — DOI: 10.34293/sijash.v7i3.546.
27. Zuraidah A. Designing the Structural Model of TVET Lecturers' Professionalism and Generic Skills Based on an Empirical Study in Malaysia / A. Zuraidah, E.H. Kazi, H.R. Nor [et al.] // SAGE Open. — 2019. — Vol. 9.
28. Juvonen S. Teachers' Expectations and Expectations of Teachers: Understanding Teachers' Societal Role / S. Juvonen, A. Toom // Finland's Famous Education System. — 2020. — P. 121-135. — DOI: 10.1007/978-981-19-8241-5_8.
29. Bushra N. Teachers' Expectations And Realities Of Teaching Profession: What Matters For Quality Education? / N. Bushra, B.K. Khuda, I. Asif [et al.] // Webology. — 2022. — Vol. 19. — № 2 — P. 7990-8004.
30. Bećirović S. Impact of Social Changes on Teacher's Role and Responsibilities in The Educational System / S. Bećirović, A. Akbarov // Journal of Linguistic and Intercultural Education. — 2015. — № 8. — P. 21-35. — DOI: 10.29302/jolie.2015.8.2.
31. Nousheen A. Education for sustainable development (ESD): Effects of sustainability education on pre-service teachers' attitude towards sustainable development (SD) / A. Nousheen, S.A. Yousuf Zai, S.A. Khan [et al.] // Journal of Cleaner Production. — 2020. — Vol. 250. — DOI: 0.1016/j.jclepro.2019.119537.
32. Akça F. Sustainable Development in Teacher Education in Terms of Being Solution Oriented and Self-Efficacy / F. Akça // Sustainability (Switzerland). — 2019. — № 11. — 6878. — DOI: 10.3390/su11236878

Список литературы на английском языке / References in English

1. Transforming our world: the 2030 Agenda for Sustainable Development. — URL: <https://sustainabledevelopment.un.org/post2015> (accessed: 13.11.2024)
2. Ünal F. Citizenship Education for Adults for Sustainable Democratic Societies / F. Ünal, H. Kaygın // Sustainability. — 2020. — № 12. — P. 56.
3. Chajkin V.N. Obrazovanie kak faktor ustojchivogo razvitiya Rossii [Education as a Factor of Sustainable Development of Russia] / V.N. Chajkin // Forum. — 2016. — № 1(7). — P. 7-9. [in Russian]
4. Moiseev N.N. Jekologija i noosfera [Ecology and the Noosphere] / N.N. Moiseev // Jekologija i zhizn' [Ecology and Life]. — 1999. — № 3. — P. 10. [in Russian]
5. Obrazovanie dlja ustojchivogo razvitiya [Education for Sustainable Development] / Ed. by N.S. Kasimova, V.S. Tikunova. — Smolensk: Madzhenta, 2003. — 158 p. [in Russian]
6. Nazaretjan A.P. Vospitatel'nyj potencial sinergetiki: gipoteza tehno-gumanitarnogo balansa [Educational Potential of Synergetics: the Hypothesis of Techno-Humanitarian Balance] / A.P. Nazaretjan // Nauchnyj rezul'tat. Serija Psihologija i pedagogika [Psychology and Pedagogy Series]. — 2014. — № 2. — P. 98-103. [in Russian]
7. Aleksandrova E.A. Formirovanie jekologicheski orientirovannogo soznaniya v professional'nom obrazovanii [Formation of an Environmentally Oriented Consciousness in Professional Education] / E.A. Aleksandrova, E.A. Maksimova // Jetnokul'turnoe obrazovanie v sovremennom mire [Ethno-Cultural Education in the Modern World]: Collection of scientific articles based on the materials of the All-Russian Full-Time Scientific and Methodological Conference, Saratov, April 18-20, 2017. — Saratov: Pero, 2017. — P. 17-23. [in Russian]
8. Slobodchikov V.I. Nauchno-tehnologicheskie układy i podhody v professional'nom obrazovanii [Scientific and Technological Mode and Approach to Professional Education] / V.I. Slobodchikov, S.M. Zverev // Vvedenie v antropologiju obrazovanija [Introduction to the Anthropology of Education]. — M., 2014. — Iss. II. — 190 p. [in Russian]
9. Serikov V.V. Smozhem li my podgotovit' kompetentnogo pedagoga? Paradoksy i perspektivy pedagogicheskogo obrazovanija [Are We Able to Teach a Competitive Teacher? Paradoxes and Future of Pedagogical Education] / V.V. Serikov // Izvestija Volgogradskogo Gosudarstvennogo pedagogicheskogo universiteta [Bulletin of Volgograd Pedagogical University]. — 2012. — № 11 (75). — P. 30-33. [in Russian]
10. Blinov V.I. Standart rezul'tata (o novyh Federal'nyh gosudarstvennyh standartah professional'nogo obrazovanija) [Standard of Result (on new standards in professional education)] / V.I. Blinov // Professional'noe obrazovanie v Rossii i za rubezhom [Professional Education in Russia and Abroad]. — 2010. — № 1 (2). — P. 5-14. [in Russian]

11. Maksimova E.A. Povyshenie kvalifikacii v sisteme nepreryvnogo professional'nogo obrazovaniya [Up-Levelling Qualification in the System of Life-Long Professional Education] / E.A. Maksimova // Vektor nauki Tol'jattinskogo gosudarstvennogo universiteta. Serija: Pedagogika, psihologija [Vector of Science of Tolyatti State University. Series: Pedagogics and Psychology]. — 2012. — № 1 (8). — P. 206-208. [in Russian]
12. Nikitin M.V. Polistrukturnaja model' kolledzha – obrazovatel'nogo kompleksa: harakteristiki konkurentosposobnosti [Polystructural Model of College – Educational Complex: Characteristics of Competitiveness] / M.V. Nikitin // Professional'noe obrazovanie i rynek truda [Professional Education and Labor Market]. — 2016. — № 2. — P. 10-15. [in Russian]
13. Rozov N.S. Ustojchivoe razvitie i cennostnoe soznanie [Sustainable Development and Axiological Conscious] / N.S. Rozov. — Novosibirsk: IFiPr SO RAN, 1994. — 32 p. [in Russian]
14. Osmolovskaja I.M. O paradimah v pedagogike [On Paradigms in Education] / I.M. Osmolovskaja // Innovacii v obrazovanii [Innovations in Education]. — 2007. — № 2. — P. 20-29. [in Russian]
15. Trjapicyna A.P. Orientiry obnovenija sodержanija professional'noj podgotovki budushhih uchitelej [Guides to modernize content of professional training of future teachers] / A.P. Trjapicyna, S.A. Pisareva // Chelovek i obrazovanie [Man and Education]. — 2016. — № 3 (48). — P. 12-18. [in Russian]
16. Mogilevskij V.D. Metodologija sistem: verbal'nyj podhod [Methodology of System: Verbal approach] / V.D. Mogilevskij. — M.: Jekonomika, 1999. — 251 p. [in Russian]
17. Kuz'mina N.V. Ponjatie «pedagogicheskij sistemy» i kriterii ee ocenki [The Definition of Pedagogical System and Criteria of Its Evaluating] / N.V. Kuz'mina // Metody sistemnogo pedagogicheskogo issledovanija [Methods of System Pedagogical Research]. — M.: Folk Education, 2002. — P. 7-52. [in Russian]
18. Knjazeva E.N. Sinergetika: nachala nelinejnogo myshlenija [Synergetic: the Beginning of Non-Linear Thinking] / E.N. Knjazeva, S.P. Kurdjumov // Obshhestvennye nauki i sovremennost' [Educational Sciences in Modern Life]. — 1993. — №2. — P. 38-51. [in Russian]
19. Mel'nik T.E. Konceptual'nye polozhenija formirovanija pedagogicheskogo obrazovaniya v interesah ustojchivogo razvitija [Conceptual Provisions of the Formation of Teacher Education in the Interests of Sustainable Development] / T.E. Mel'nik // Vestnik TGPU [Bulletin of the Tomsk State Pedagogical University]. — 2013. — №1 (129). — P. 69-71 [in Russian]
20. Estrada-Vidal L.I. The Differences across Future Teachers Regarding Attitudes on Social Responsibility for Sustainable Development / L.I. Estrada-Vidal, M.C. Olmos-Gómez, F. Ruiz-Garzón // International Journal of Environmental Research and Public Health. — 2020. — № 17. — P. 5323
21. Professional'nyj standart «Pedagog professional'nogo obuchenija, professional'nogo obrazovaniya i dopolnitel'nogo professional'nogo obrazovaniya» [National Professional Standard "Teacher of Vocational Training, Vocational Education and Additional Professional Education"]: Order of the Ministry of Labour of the Russian Federation dated 08.09.2015 No. 608 H. — URL: <https://base.garant.ru/71202838/> (accessed 13.11.2024) [in Russian]
22. Nikitina G.A. Complex Competency-Based Model of the Intending Foreign Language Teacher / G.A. Nikitina // Perspectives of Science and Education. — 2021. — № 5(53). — P. 223-237. — DOI: 10.32744/pse.2021.5.15.
23. Nikitina G. A. Pedagogical Conditions of the Moral and Aesthetic Development of Learners in Foreign Language Lessons / G.A. Nikitina, V.V. Ryzhova // Russian Linguistic Bulletin. — 2019. — № 2(18). — P. 27-30. — DOI: 10.18454/RULB.2019.18.2.3.
24. Proekt professional'nogo standartov «Pedagogicheskij rabotnik vysshego obrazovaniya» [Project of the National Professional Standard "Pedagogical Worker of Higher Education"]. — URL: https://profstandart.rosmintrud.ru/obshchij-informatsionnyy-blok/reestr-vedomleniy-o-razrabotke-peresmotre-professionalnykh-standartov/index.php?ELEMENT_ID=113528 (accessed: 13.11.2024) [in Russian]
25. Waltner E. What Teachers Think and Know about Education for Sustainable Development and How They Implement it in Class / E. Waltner, K. Scharenberg, Ch. Hörsch [et al.] // Sustainability. — 2020. — № 12. — P. 1690.
26. Srinivasan R. A Relationship Between Self-Esteem and Teaching Competency of Prospective Teachers / R. Srinivasan // Shanlax International Journal of Arts, Science and Humanities. — 2020 — № 7. — P. 44-48. — DOI: 10.34293/sijash.v7i3.546.
27. Zuraidah A. Designing the Structural Model of TVET Lecturers' Professionalism and Generic Skills Based on an Empirical Study in Malaysia / A. Zuraidah, E.H. Kazi, H.R. Nor [et al.] // SAGE Open. — 2019. — Vol. 9.
28. Juvonen S. Teachers' Expectations and Expectations of Teachers: Understanding Teachers' Societal Role / S. Juvonen, A. Toom // Finland's Famous Education System. — 2020. — P. 121-135. — DOI: 10.1007/978-981-19-8241-5_8.
29. Bushra N. Teachers' Expectations And Realities Of Teaching Profession: What Matters For Quality Education? / N. Bushra, B.K. Khuda, I. Asif [et al.] // Webology. — 2022. — Vol. 19. — № 2 — P. 7990-8004.
30. Bećirović S. Impact of Social Changes on Teacher's Role and Responsibilities in The Educational System / S. Bećirović, A. Akbarov // Journal of Linguistic and Intercultural Education. — 2015. — № 8. — P. 21-35. — DOI: 10.29302/jolie.2015.8.2.
31. Nousheen A. Education for sustainable development (ESD): Effects of sustainability education on pre-service teachers' attitude towards sustainable development (SD) / A. Nousheen, S.A. Yousuf Zai, S.A. Khan [et al.] // Journal of Cleaner Production. — 2020. — Vol. 250. — DOI: 0.1016/j.jclepro.2019.119537.
32. Akça F. Sustainable Development in Teacher Education in Terms of Being Solution Oriented and Self-Efficacy / F. Akça // Sustainability (Switzerland). — 2019. — № 11. — 6878. — DOI: 10.3390/su11236878