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DIDACTIC POSSIBILITIES OF USING AN INFORMATIONAL EDUCATIONAL ENVIRONMENT IN THE TEACHING OF VOCATIONAL EDUCATION SUBJECTS

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Abstract. This article examines the didactic possibilities of using an informational educational environment (IEE) in teaching vocational education subjects, with particular reference to the professional training of future coach-educators in national sports. It analyzes the pedagogical potential of integrating modern information and communication technologies, electronic educational resources, virtual communication databases, and multimedia tools into the educational process. An organizational and structural model for implementing an IEE is presented, highlighting its key components and their role in improving the quality and effectiveness of education. Particular attention is paid to developing students' independent learning abilities, information literacy, professional knowledge, practical skills, and motivation. The findings demonstrate that the purposeful integration of an informational educational environment creates favorable pedagogical conditions for individualizing learning, increasing students' cognitive engagement, and improving the overall effectiveness of professional education.

Keywords: informational educational environment, vocational education subjects, didactic possibilities, coach-educators, national sports, information and communication technologies, electronic educational resources, independent learning, professional competencies.

The effective use of an informational educational environment (IEE) necessitates the application of innovative approaches in the process of preparing future specialists for professional activities. The effectiveness of this process is primarily determined by the improvement of the educational, methodological, and informational support of the subjects being taught through modern pedagogical and information and communication technologies. In this regard, academic staff are required, firstly, to possess in-depth theoretical knowledge and sufficient professional competencies in the subjects they teach; secondly, to demonstrate a high level of information culture and digital literacy; and thirdly, to introduce new pedagogical solutions into the educational process based on creative and innovative thinking. The integration of these factors ensures the necessary pedagogical conditions for designing and developing an informational educational environment for specific subjects, effectively integrating it into the learning process, and fostering students' independent learning, information-handling skills, and professional competencies.

The purpose of this article is to provide a scientific and theoretical analysis of the didactic potential of using an informational educational environment (IEE) in teaching vocational education subjects as part of the professional training of future coach-educators in national sports, and to substantiate its pedagogical significance in improving educational effectiveness.

As a result of scientific research into the informational educational environment (IEE), its development, opportunities for practical implementation, and didactic foundations, it became possible to

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develop an organizational and structural model for using an informational educational environment in the training of future specialists at Olympic and Paralympic sports training centres. This model is presented in Figure 1 [1–3].

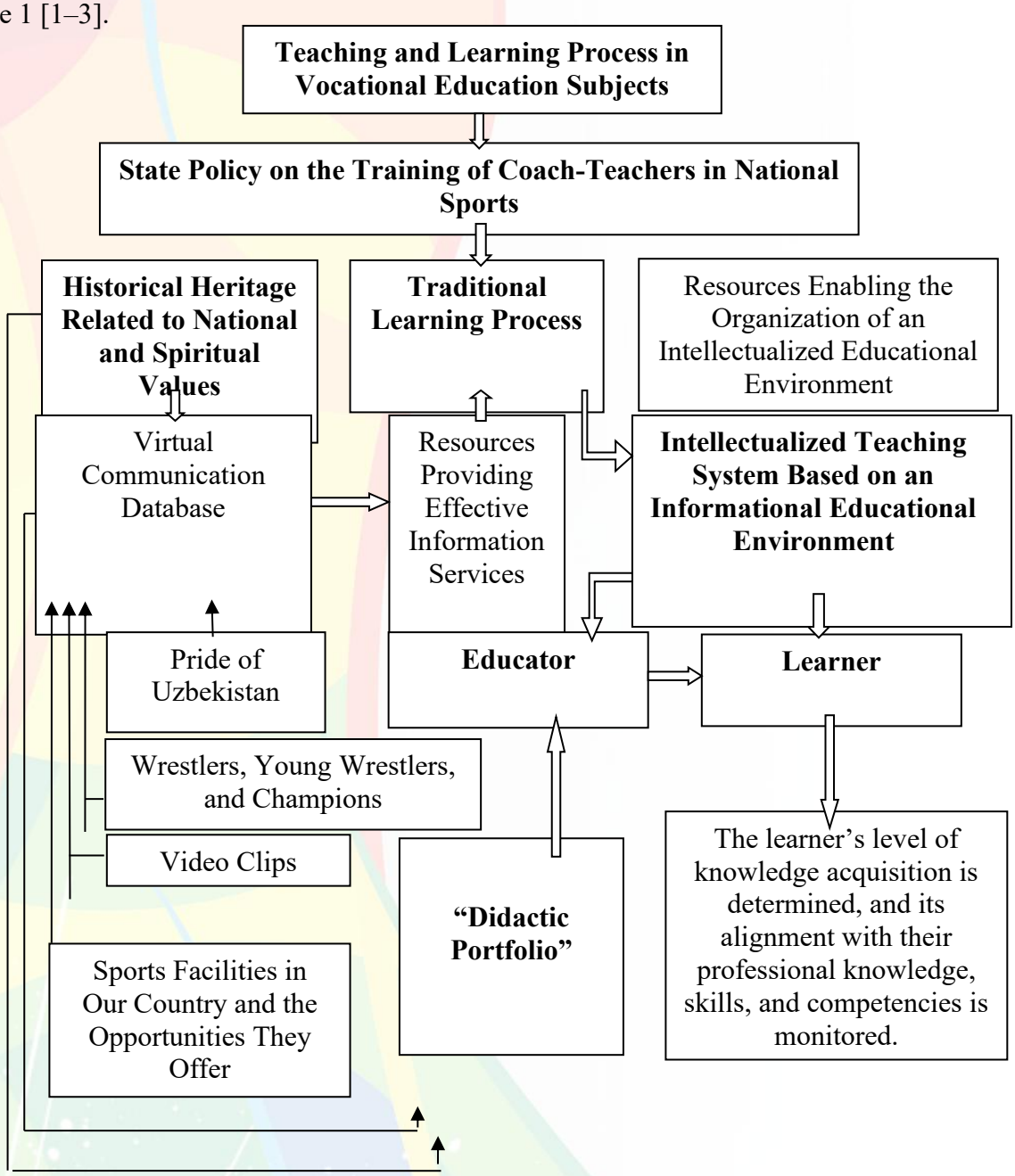

Figure 1. Organizational and Structural Representation of the Didactic Possibilities of Using an Informational Educational Environment in Teaching Vocational Education Subjects.

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The block entitled "State Policy on the Training of Coach-Teachers in National Sports" reflects regulatory and legal documents defining the priority areas of state policy in the field of education. These include the Law "On Education", the National Programme for Personnel Training, as well as relevant regulatory and legal documents aimed at developing and improving secondary specialized and vocational education and enhancing the content and quality of education [7].

The block entitled "Historical Heritage Related to National and Spiritual Values" contains scientific, historical, and methodological materials reflecting the national and spiritual wealth, historical heritage, customs, and traditions of the Uzbek people. Particular attention is given to materials concerning the origins, formation, historical development, and intergenerational transmission of traditions associated with national sports [3].

The block entitled "Resources Enabling the Organization of an Intellectualized Educational Environment" comprises electronic educational resources and software tools that facilitate the informatization and intellectualization of the educational process. In particular, its main components include electronic textbooks, electronic teaching aids, electronic lecture materials, expert systems, simulation programs, educational informatization and computerization systems, intelligent books, intelligent systems, and other modern information and communication technology tools. These resources contribute to students' independent learning, consolidation of theoretical knowledge, development of practical skills, and expansion of opportunities for education based on individual learning pathways [4].

The block entitled "Resources Providing Effective Information Services" encompasses modern information and communication services and technologies that facilitate information exchange, data retrieval, transmission, reception, and utilization within the educational process. In particular, its main components include facsimile transmission, electronic mail, distance learning, the Internet, computer-based teleconferencing, virtual libraries, and other services provided by global information networks. These services facilitate prompt information exchange between academic staff and students, provide remote access to educational and methodological resources, and improve the level of information support within the educational process.

The block entitled "Main Database for Virtual Communication" comprises structured electronic databases containing information about national sports, their historical development, prominent athletes, and sports infrastructure. In particular, this block includes biographical and professional information about athletes who have been awarded the honorary title "Pride of Uzbekistan"; video materials and video clips promoting national sports; information about polvons, polvonzodas, and pahlavons (traditional Uzbek wrestlers and strongmen); as well as electronic databases containing information about sports facilities in the country, their material and technical resources, and available facilities. These databases serve to broaden future coach-teachers' knowledge of national sporting heritage, develop their professional outlook, and expand opportunities for information exchange [5].

The block entitled "Didactic Portfolio" contains additional educational materials designed to enrich the content of academic subjects, form and develop the motivational component of the learning process, and increase students' interest in the subject and their cognitive engagement. In particular, its components include supplementary texts related to the subject, test questions, assessment criteria for knowledge and skills, educational principles, and methodological recommendations for organizing the learning process. These materials help activate future specialists' independent learning activities, deepen their professional knowledge, and develop their learning motivation.

The purposeful and effective use of the above-mentioned didactic possibilities by academic staff in the educational process creates the necessary conditions for implementing innovative educational approaches.

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The main reason for this is that, in the traditional educational process, students primarily acquire knowledge and information related to a particular subject or topic from textbooks, teaching aids, and other educational literature, with the direct involvement and methodological guidance of academic staff. In an informational educational environment, however, students have the opportunity to independently search for, retrieve, select, analyse, and acquire the necessary information and educational materials using modern information and communication technologies, sometimes with the direct or indirect assistance of academic staff. This contributes to the development of independent learning, the formation of individual learning pathways, the improvement of information-handling competencies, and an increase in students' cognitive engagement [6].

In conclusion, it should be emphasized that creating an informational educational environment and using it in combination with multimedia tools in the educational process contributes to improving the quality and effectiveness of students' acquisition of academic subjects and their individual topics. Such an educational environment creates the necessary pedagogical conditions for presenting educational information in various forms and formats, stimulating students' cognitive engagement, expanding opportunities for independent learning, and ensuring interactivity in the educational process.

Furthermore, the use of an informational educational environment and multimedia tools provides a basis for implementing the following didactic possibilities aimed at improving educational effectiveness:

improves the quality of education;
facilitates the learning process by making education more accessible and convenient;
enhances students' level of knowledge and academic proficiency;
promotes the growth of the intellectual potential of education;
facilitates the integration of the national education system into the global education system.

References

1. To'raqulov X.A., Muqimov M.O. Professional ta'limda mutaxassislarni kasbiy faoliyatga tayyorlashni axborotlashtirish. Monografiya. – T.: Fan va texnologiya, 2014. – 174 b.
2. Muqimov M.O. Professional ta'limda mutaxassislarni kasbiy faoliyatga tayyorlashning ilmiy-nazariy va pedagogik asoslari. Monografiya. – T.: Fan va texnologiya, 2013. – 212 b.
3. Aprea, C., & Cattaneo, A. A. P. (2019). Designing technology-enhanced learning environments in vocational education and training. In *Handbook of vocational education and training*. Springer.
4. Delcker, J., & Ifenthaler, D. (2022). Digital distance learning and the transformation of vocational schools from a qualitative perspective. *Frontiers in Education, 7*. https://doi.org/10.3389/feduc.2022.908046
5. Cattaneo, A. A. P., Antonietti, C., & Rauseo, M. (2022). How digitalised are vocational teachers? Assessing digital competence in vocational education and looking at its underlying factors. *Computers & Education, 176*, 104358. https://doi.org/10.1016/j.compedu.2021.104358
6. Shyu, H.-Y., & Kuo, Y.-C. (2021). Use of digital learning in technical and vocational education and training: A systematic review of research and applications. *Journal of Textbook Research, 14*(3), 79–124.
7. Jiang, X., Xu, J., & Xu, X. (2024). An overview of domestic and international applications of digital technology in teaching in vocational education: Systematic literature mapping. *Education and Information Technologies*. https://doi.org/10.1007/s10639-024-12528-y