STANDARDISATION AND CERTIFICATION OF VOCATIONAL TRAINING IN UKRAINE: CHALLENGES AND PROSPECTS

NORMALIZAÇÃO E CERTIFICAÇÃO DA FORMAÇÃO PROFISSIONAL NA UCRÂNIA: DESAFIOS E PERSPECTIVAS

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Abstract

The purpose of the study is to analyse the importance of standardisation and certification in the context of vocational education, as well as to study the dynamics and main challenges facing the Ukrainian vocational education system. To achieve the aim of the article, theoretical methods of cognition were used, in particular, methods of analysis, synthesis, deduction, content analysis, induction, and comparison. The results demonstrate that further development of vocational education in Ukraine is impossible without systemic changes in the legislation governing the educational sector and other important regulatory documents, such as the National Qualifications Framework, the classification of professions, as well as documentation from the National Qualifications Agency, etc. Overcoming problems in this area, such as clarifying professional areas and making them compliant with modern requirements, as well as eliminating outdated professions that do not meet modern technologies and processes, are important for adapting educational documents and standards to the requirements of the modern world. In the process of developing new regulations in the field of vocational education, it is important to take into account existing international and European standards, which will allow Ukraine's European integration potential to be taken into account. A flexible response to changes in the labour market is also an important element of the reform. The conclusions note that harmonisation with European educational systems and finding resources for its implementation remains an important task, even in difficult conditions, including the military aggression of the Kremlin regime.

**Keywords:** vocational education, Ukraine, standardisation, EU, prospects.

Resumo

O objetivo do estudo é analisar a importância da normalização e da certificação no contexto do ensino profissional, bem como estudar a dinâmica e os principais desafios do sistema de ensino profissional ucraniano. Para atingir o objetivo do artigo, foram utilizados métodos teóricos de cognição, em particular, métodos de análise, síntese, dedução, análise de conteúdo, indução e comparação. Os resultados demonstram que o desenvolvimento do ensino profissional na Ucrânia é impossível sem mudanças sistémicas na legislação que rege o sector educativo e noutros documentos regulamentares importantes, como o Quadro Nacional de Qualificações, a classificação das profissões, bem como a documentação da Agência Nacional de Qualificações, etc. A superação de problemas nesta área, como a clarificação das áreas profissionais e a sua conformidade com os requisitos modernos, bem como a eliminação de profissões desactualizadas que não correspondem às tecnologias e processos modernos, são importantes para adaptar os documentos e normas educativas aos requisitos do mundo moderno. No processo de desenvolvimento de novas regulamentações no domínio do ensino profissional, é importante ter em conta as normas internacionais e europeias existentes, o que permitirá ter em conta o potencial de integração europeia da Ucrânia. Uma resposta flexível às mudanças no mercado de trabalho é também um elemento importante da reforma. As conclusões referem que a harmonização com os sistemas educativos europeus e a procura de recursos para a sua implementação continuam a ser uma tarefa importante, mesmo em condições difíceis, incluindo a agressão militar do regime do Kremlin.

**Palavras-chave**: ensino profissional, Ucrânia, normalização, UE, perspectivas.

Introduction

Vocational training is a key element of modern society, which is constantly evolving and changing under the influence of technological, economic and socio-cultural transformations. Ukraine, as a country with a long history and a multilayered cultural heritage, has a particular interest in vocational education and training for various fields of activity. The growing need for professionals who can compete in the international labour market requires systematic analysis and rethinking of approaches to vocational training (BUSHMAN, 2022).

Standardisation and certification is one of the most relevant areas of current activity. These processes in the context of vocational training are key mechanisms for ensuring the quality of education and determining the compliance of specialists with established standards and requirements. This is especially true in the context of globalisation, when the requirements for professional knowledge and skills are constantly growing, and the responsibility for training qualified workers lies with educational institutions, the government, and employers. Standardisation and certification of vocational training in Ukraine are important issues that affect the quality of education and the competitiveness of the national labour market. This article will focus on their essence and importance in the context of current challenges and opportunities facing the Ukrainian vocational training system.

Therefore, the proposed research article is devoted to the analysis of the processes of standardisation and certification of vocational training in Ukraine. The aim of this study is to reveal the essence and significance of standardisation and certification in the context of vocational education, as well as to examine the dynamics and main challenges facing the Ukrainian vocational education and training system in this area. The study also aims to partially review international experience and best practices in this area, which may be useful for the further development of the vocational training system in Ukraine.

Theoretical framework and literature review

In Ukraine, considerable attention is paid to regulatory and scientific, and methodological work on the standardisation of vocational education. Contemporary researchers have studied various aspects of vocational education development both in Ukraine and globally. In particular, KOVALCHUK et al. (2022a) analysed the main problems of the digital transformation of vocational institutions in Ukraine. At the same time, KOVALCHUK et al. (2022b) study vocational education in the context of modern problems and challenges of globalisation. BILLETT, CHOY, HODGE (2020) examines the key opportunities for raising the status of vocational education and various professions. COLLEY et al. (2003) explored the process of learning and development in vocational education and training, taking into account the analysis of various class and gender aspects. MARIONO & SABAR (2023) proved the importance of leadership skills in modern professions. Accordingly, we believe that modern vocational education should contribute to the development of leadership and other important competencies. Among the latter, digital competence plays an important role. This has been proven in a number of modern works (TSEKHMISTER et al., 2021; ZHANG & ASLAN, 2021). In addition, a number of other works are important for this study. In particular, DEIßINGER (2015) describes the German system of dual vocational training through work-based learning. DEIßINGER (2015) also provides a detailed overview of the German system of dual vocational education and training. A literature review on international exchange in vocational education and training was conducted by LI & PILZ (2021). At the same time, MARTÍNEZ-MORALES & MARHUENDA-FLUIXÁ (2020) describe the key aspects of the development of the vocational education system in Spain based on the analysis of current reforms in this area. TOEPPER, ZLATKIN-TROITSCHANSKAIA, KÜHLING-THEES (2022) conducted a comprehensive literature review of the problem of vocational education development in the world.

Modern studies have shown that standardisation and certification of vocational education are important processes aimed at ensuring quality and determining the compliance of vocational education with certain norms and standards (MULDER et al., 2007; STALDER et al., 2022). In particular, the standardisation of vocational education includes the development and establishment of standards that define the expected outcomes and requirements for vocational education. Standards define what knowledge, skills, and competencies students should acquire while studying in a particular field or profession. They help to ensure consistency and high quality of curricula and educational services. Ukrainian legislation stipulates that state education standards establish the criteria for the content, scope, and level of educational and vocational training throughout Ukraine. These standards are the basis for assessing the educational and qualification levels of individuals, regardless of the form of education they receive.

According to the STOICHYK (2018) concept, the objects of vocational education standardisation are: the content and system of vocational education, forms and frequency of control of acquired knowledge and skills, qualification level of teachers, and curriculum documents. At the same time, the Certification of Vocational Education is about assessing and recognising that students have acquired the necessary competencies and qualifications in accordance with the established standards. This may include assessing students' knowledge, skills, and abilities, conducting examinations, attesting, and issuing certificates or diplomas that confirm their professional training (DE VRIES & EGYEDI, 2007). Certification can be carried out by different organisations or institutions that have the appropriate authority. Together, these processes help to ensure the quality and level of vocational education, make it more transparent and recognised both nationally and internationally, and contribute to the competitiveness of graduates on the labour market.

Methodology

Accordingly, the methodological basis of the article is formed by the regulatory and legal documents that facilitate the functioning of vocational education in Ukraine. The concept of the state standard of education in Ukraine was first introduced in the Law of Ukraine “On Education” of 1991. The basic document “Regulation on Educational Qualification Levels (Degree Education)” was issued by the Cabinet of Ministers of Ukraine on 20 January 1998. In 1995, Ukraine introduced the National Classifier of Ukraine entitled “Classifier of Professions” (DK 003:1995). The issue of regulating general education, general vocational, vocational-theoretical, and vocational-practical training of skilled workers was addressed in the Order of the Ministry of Education and Science of Ukraine of 13 October 2010, No. 947. This order defines the standard basic structure of the curriculum for the training of qualified specialists in vocational schools. On 23 November 2013, the Cabinet of Ministers of Ukraine issued a Resolution formally approving the National Qualifications Framework. This framework serves as a comprehensive and competency-based representation of different levels of qualifications. The Law of Ukraine “On Education” emphasises the importance of the National Qualifications Framework, noting that it is based on both European and national standards and principles aimed at ensuring the quality of education. Importantly, each level of the National Qualifications Framework is accompanied by a descriptor that outlines the fundamental competencies and learning outcomes. These qualification levels are classified and described in a certain order in accordance with the provisions of the Law of Ukraine “On Education”, and they lay the foundation for educational and professional progression within the Ukrainian qualifications system. There are 10 levels in total, which are determined by the different abilities of the student. Other important regulatory documents and methodological basis for the study on standardisation of training in vocational education institutions are the Constitution of Ukraine, the National Strategy for the Development of Education in Ukraine for 2012-2021, the Laws of Ukraine “On Education” (2017), “On Professional Development of Employees” (2012), “On Standardisation” (2014), etc. These documents form the methodological basis of the article. Thus, the study is based on a content analysis of modern scientific literature and Ukrainian legislation.

Results

Problems and prospects of standardisation development in the Ukrainian vocational education system

In order to implement productive and coordinated activities of all participants in the educational process in vocational education institutions of Ukraine, a fundamental system is needed that provides a comprehensive understanding of the state standard of vocational education. This standard, as a regulatory document, establishes a comprehensive system of rules and regulations governing the subject of standardisation. It serves as the main tool for the supervision and management of the quality of vocational education at the national level. In addition, standardisation acts as a kind of social guarantee for graduates of vocational education and training institutions, ensuring their employability and competitiveness not only in the domestic labour market but also on the global stage (STOICHYK, 2018). In addition, in order to ensure that graduates meet the modern requirements driven by scientific and technological progress, it is necessary to ensure compliance with the requirements set out in education standards. These standards apply to teachers and academic staff, educational service providers, employment services, as well as employers and trade unions (BAKHMAT et al., 2022). In view of the above considerations, the standardisation of vocational education in Ukraine is primarily aimed at achieving a high level of quality of training of educational professionals and organisational specialists, as well as specifying educational goals and outcomes. In order to achieve these goals, it is necessary to use key methodological principles, approaches, and principles of systemic research when considering vocational education as a scientific phenomenon at the appropriate conceptual level.

Thus, in Ukraine, considerable emphasis is placed on regulatory and scientific, and methodological work on the standardisation of vocational education. A fundamental component of this process of education standardisation has always been the establishment of basic norms (LUZAN et al., 2020). However, the specific type, content, and scope of these norms have been shaped primarily by socioeconomic and political influences. For example, Ukraine inherited educational standards from the Soviet education system, which were distinguished by a systematic approach to the educational process and strict regulation of content, while demonstrating a high level of efficiency (KALENSKYI et al., 2018). The Law of Ukraine “On Education” of 1991 stipulates that education standards establish criteria for the content, scope, and level of educational and vocational training throughout Ukraine. State education standards are developed independently for each educational level and officially approved by the Cabinet of Ministers of Ukraine (LUZAN et al., 2020). In the field of vocational education, the methodology for developing standards is laid down in the Concept of State Standards of Vocational Education. These standards in this area emphasise the balance between natural and mathematical, humanitarian, general technical, vocational and theoretical, vocational and practical, and physical training. Equally important is the consistent focus on the general educational and cultural development of specialists, which is necessary to achieve a high level of professional competence (LUZAN et al., 2018; ZINCHENKO et al., 2020).

The autonomy of vocational schools was established through the introduction of this model basic structure, which allowed for the distribution of study time between semesters. In addition, elective subjects are determined by the vocational education institution in compliance with the maximum permissible academic load, taking into account the main interests and needs of students, the level of technological and methodological support, human resources, and the specifics of professions (KALENSKYI et al., 2018).

At the current stage of the development of vocational education, the National Qualifications Framework, which identifies ten different levels of qualifications, is of great importance. This legal document establishes the existence of two different types of qualifications: educational and vocational. It states that educational qualifications are awarded by vocational education institutions in accordance with educational standards, and vocational qualifications are awarded in specific professional fields in accordance with professional standards (LUZAN et al., 2018). Thus, occupational standardisation serves as a categorisation system that covers different professions, occupations, and jobs. It reflects the demands of society for training by vocational education and training institutions (DE VRIES & EGYEDI, 2007). The collection of occupations should be clearly documented and enshrined in official state documents. The classifier of professions plays an important role in the system of standardisation of vocational education. It is based on the International Standard Classification of Occupations (ISCO 88). This, in turn, improves the implementation of the international exchange of professional information. However, this basic document regulating the standardisation of occupational classification has a number of significant shortcomings from the perspective of the labour market. These shortcomings include: 1. the inclusion of almost half of the outdated occupations due to technical limitations that do not correspond to modern technologies and processes still in use in Ukraine. 2. Historical dependence on printed formats for official recognition, with digital versions only becoming officially recognised after the 2015 amendments to the Law on Standardisation. 3. Lack of personalised coding and lack of English versions of occupational titles. 4. Limited integration with the description of classification groups and nomenclature of aggregated occupations, unlike the International Standard Classification of Occupations. 5. The inability to distinguish between occupations and similar job roles that are part of them (KALENSKYI et al., 2018).

Solving these problems is associated with various challenges. The main obstacles to implementing changes to the Occupational Classification System (OCS) are the liquidation of the State Standard of Ukraine, the lack of an official electronic database for the OCS, the closure of most occupational classification centres in Ukraine, and the termination of the OCS support by the Ministry of Social Policy of Ukraine. It is noteworthy that the latter was the only specialised institution in the country responsible for the development and maintenance of the CP from 1995 to 2014.

At the same time, it should be noted that competency-based vocational education standards have been actively developed and used since 2016 with the direct involvement of stakeholders. They are flexible, based on innovative requirements, and generally meet the requirements of the market and vocational education students (VANINA, 2018). In particular, according to statistics, as of 1 August 2020, 180 standards of vocational education in various professions based on the competence approach were introduced. Modern educational programmes are being actively developed in vocational education based on competence-based modular approaches. This is especially true for dual-form education: when all educational programmes are developed in cooperation with employers (DEISSINGER, 2015). Since the creation of the National Qualifications Agency, the rules for creating and updating the basic professional standards are created under the coordination of this body. Accordingly, the Ministry of Education and Science of Ukraine is able to adapt educational standards more dynamically to the nomadic modern market requirements. As a result of stakeholder involvement in the organisation of the educational process, vocational education institutions can receive relatively modern methodological support and improve their material and technical base (KOVALCHUK et al., 2022a). This makes it possible to train specialists based on modern production technologies, as well as to improve the qualifications of teachers. In the academic year 2019-2020, there was an active effort to create the basic conditions for combining work with study based on evening or part-time education and in the format of increasing the share of practical training of students. This was ensured by the Decree of the Cabinet of Ministers of Ukraine No. 214-p of 3 April 2019 and No. 1551 of 12 December 2019.

At the same time, the lack of regulations on vocational education in the institutional format until 2019 can be considered a factor hindering the development of vocational education. Regulatory and legal measures to a certain extent regulate the organisation of part-time, evening, and distance forms of vocational education. With regard to general secondary education in vocational education institutions, this is regulated by the Ministry of Education and Science of Ukraine in several orders: No. 536 of 23.04.2019, No. 547/33518 of 22 May 2019, and No. 466 of 25 April 2013. However, there is a certain lack of legislative regulation of the organisation of vocational education in network modes. Therefore, the Ministry of Education and Science of Ukraine addressed this gap by issuing Order No. 1552 dated 12.12.2019 “On Approval of the Regulation on the Institutional Form of Vocational Education”. This Regulation was registered with the Ministry of Justice of Ukraine on 18 February 2020 under No. 182/34465 and defines the procedure for obtaining vocational education. However, in light of the modern educational space, special attention needs to be paid to solving problems related to the educational and methodological support of students.

Experience of standardisation and certification in vocational education in the EU countries for Ukrainian realities

Most modern European countries recognise the purpose of vocational education and training standards as providing a link between vocational training and the economic sector where graduates can find employment after graduation. International experts and researchers acknowledge that vocational education standards should facilitate mutual recognition of different diplomas and certificates in EU member states, as well as establish qualification requirements that are defined as uniform for recognition across the EU (KORNYTSKA et al., 2023). The concept of lifelong learning, which has progressive ideas expressed in the documents of international organisations, also including the recommendations of UNESCO and the International Labour Organisation, and other international agreements, has become the basis for training competitive and professional staff in the twenty-first century in the context of European integration. Particular attention should be paid to the Lisbon Resolution (2000), which calls for interaction between economic, employment, and human resource development policies to ensure high-quality vocational training, including the more efficient use of investments in human capital development.

Modern models and strategies in the field of vocational education in the European Union are formed with the active participation of social partners - stakeholders. These social partners ensure a well-established link between vocational education and training, employers, and the real requirements of the economy (EICHHORST et al., 2013). Any innovations are subject to a broad social dialogue, as they concern not only the state and employers but also citizens who are active participants in reforming and productive changes in the vocational education system. The Finnish experience in standardisation is based on forecasting global changes in global labour and trade markets, researching potentially promising areas for concentrating national resources and using the most modern legislative and democratic model of reforms (KOLISNYK, 2017). Finland has a clear classification system in vocational education, where sectors are divided into subdivisions, subdivisions into profiles, and profiles into specialities. Finnish education policy is aimed at raising the level of educational achievement of students, and due to the flexibility of the training system, employees of different educational institutions have the opportunity to learn from each other, which contributes to the spread of advanced approaches in education (KOLISNYK, 2017).

An important feature of the German vocational training system is its focus on concentrating and integrating educational resources. Adaptation of education to the needs of the labour market significantly reduces possible mistakes in choosing a profession and creates favourable conditions for further training and retraining. Instead of establishing many vocational schools in different regions and dispersing financial resources for their logistical support, Germany is developing district and regional centres for primary and secondary vocational education that provide training in various professions and specialities. Another important approach is the introduction of a dual approach in vocational education in Germany (See Table 1). Thus, the dual approach in Germany is a key component of vocational education and plays an important role in preparing young people for work in various industrial and service sectors (DEISSINGER, 2015).

Table 1 – Main aspects of European vocational training

|  |  |
| --- | --- |
| Aspects | Explanation. |
| Specialised Training | Dual education provides students with the opportunity to receive specialised training in a particular field or profession. This means that they acquire practical skills and knowledge that are directly applicable in the work environment |
| Partnership with Enterprises | Dual education is based on a partnership between educational institutions and businesses. Students study in companies under the guidance of experienced professionals, which allows them to gain real work experience. |
| Officially recognised professions, encouragement of career development. | Many of the professions available through dual education are officially recognised and regulated in Germany. This ensures a higher quality of training and standardisation in the vocational fields |
| High level of employment | Graduates of dual education in Germany have a high employment rate. They are ready to enter the labour market and are well equipped with the necessary skills to fulfil their professional duties. |
| Support from the industry, financial support | Companies involved in dual education actively influence the curriculum and provide students with the necessary resources and mentoring. Many students who choose dual education receive financial compensation or scholarships from businesses, which helps to reduce the financial burden on students. |

Source: compiled by the authors.

The key trends in shaping the content of vocational education that have been successfully applied in the EU can be implemented in Ukraine. In particular, the Danish vocational education system is characterised by a high level of stakeholder participation. The Danish Ministry of Education has delegated responsibility and authority for vocational education to social partners and vocational colleges, which play a key role in updating and adapting programmes to the needs of the labour market. The standards of the French vocational education system are similar in content. In particular, they refer to reaching a compromise in solving the problems of vocational education by including social partners (representatives of professional associations, chambers of commerce, trade unions, and other employers) in the development and implementation of vocational education policy (KOLISNYK, 2017). France's experience can be useful for the additional introduction of modern production technologies, which will increase quantitative and qualitative changes in the certified professional qualification structure of future employees and ensure the growth of their professional competence. This applies to modern professions of a wide range, including service and maintenance, installation, adjustment, repair of machinery and equipment, implementation of information and communication systems, etc. (MULDER, WEIGEL, COLLINS, 2007) Best practices and principles of developing standardisation of vocational education in European countries can be presented in a comparative context (see Table 2).

Table 2 – Principles for the development of new standards in vocational education in the EU

|  |  |
| --- | --- |
| The basic principle | Meaning |
| Versatility | The development of vocational education in the EU is generally in line with the adoption of international agreements in this area. Given Ukraine's pro-European aspirations, there is a need to harmonise standards and certificates with European models. Based on this, it can be concluded that when further draft laws are adopted in the Ukrainian context, there is a need for them to be in line with the most important international agreements and provisions in this area. |
| Focus on the labour market | Modern standards of training in European countries are aimed at taking into account the existing realities of the labour market. For this reason, the teaching of certain disciplines or training in certain specialities can be improved or revised through established cooperation with employers. In the Ukrainian context, this approach is only beginning to emerge, as new professional standards and accreditation in the specialities have been developed relatively recently. These processes involve establishing cooperation between vocational education institutions and stakeholders. |
| Flexibility | The Finnish and German systems of vocational education standardisation offer a flexible approach to identifying promising areas for further training. This makes it possible to concentrate material resources and teaching staff and use them as efficiently as possible. |
| Democracy | Modern models and strategies in the field of vocational education and training in the EU are developed with the active participation of stakeholders. They are key players in establishing a link between vocational education, employers, and the real needs of the economy. Any innovations are subject to a broad public dialogue, as they affect not only the state and employers but also citizens who are active participants in the reform process. |

Source: author's development.

The dissemination of advanced approaches and best practices in the field of vocational education standardisation through the organisation of workshops, lectures and seminars, individual conferences, and consultations for the implementation of the State Standards will help to quickly adapt vocational education to the needs of modern society. In the context of rapidly changing processes in the economy and society, people are often forced not only to change their jobs but also to learn new professions that do not always correspond to traditional ideas. Modern society prefers mobile workers, and this is reflected in the labour market. The use of European experience in Ukraine will allow us to adopt these foundations of standardisation for future development.

Discussion

Further transformations in the field of changes in standardisation and certification of vocational education will undoubtedly be an important task for improving the quality of education and ensuring compliance with the needs of the modern labour market in Ukraine. The use of European experience, in connection with the further development of Ukraine's Eurocentric vector in general, will lead to the expansion of the practice of cooperation between employers and educational institutions in the development of new mechanisms and innovations in the development of vocational education (KORNEIKO, TARANGUL, DOVZHUK, 2023; MYRONENKO et al., 2022). One of the key steps on this path, according to researchers, is to analyse the needs of the labour market (KRYMETS, 2022). The relevance of this first task is to determine which professions and skills are most in demand in Ukraine's modern economy. This will allow us to identify priority programmes and specialisations that need further development. The next step would be to update the curricula, which is also undeniably important in European countries, as researchers have repeatedly pointed out (KOLISNYK, 2017). Based on the results of the labour market needs analysis, it is necessary to update curricula by adding new professions and modern skills to existing certificates and standards (STOICHYK, 2018). This practice, as can be seen from the study, is actively used in Denmark, Germany, and France, where monitoring of relevant statistical indicators makes it possible to determine effective forecasts for the future (KOLISNYK, 2017; VANINA, 2018; KALENSKYI et al., 2018). In Ukrainian realities, such mechanisms will require further improvement, since, as can be seen from the analysis of the legislative framework of Ukrainian vocational education, the conservatism of some outdated areas of training remains an urgent challenge for the educational system as a whole.

It is also worth noting that modern standards of vocational education are met by the constant need for teachers and other professionals in the field of vocational education to have access to training and professional development (NOWAK, & PALINCHAK, 2020). These procedures will help maintain high standards of teaching. The organisation of continuous professional development is in line with the lifelong learning system, which demonstrates significant results in France and other European countries. As demonstrated in contemporary studies, in particular in POLEZHAEV (2021) and SEREDA (2020), such a system has only just begun to emerge in the Ukrainian context as a result of government decisions and changes in the education system in general. For this reason, the importance of further changes in standards is still uncertain, as changes will continue to take place.

Support for students and apprentices in vocational education and training in European countries includes the creation of a favourable learning environment. First andforemost, it means opportunities for grants and scholarships, better access to information resources and career support, etc. In the realities of transformations in the standards of training in Ukraine, it is also relevant to introduce opportunities to reward the best applicants, remove obstacles to their integration into production environments, etc.

It is also important to ensure that materials and equipment in vocational education institutions are up to date. According to the researchers, in European countries, the improvement of the material and technical base is achieved through the cooperation of private business (employers) with vocational education institutions. In Ukraine, such cooperation is difficult, as there are many bureaucratic barriers to its implementation. Removing these obstacles will require more detailed changes in the legislative framework, not only in the documents related to standardisation and certification. Overcoming this challenge will be an important vector for the development of Ukrainian vocational education in general.

Conclusions

Thus, the processes of standardisation and certification in the field of vocational education in Ukraine pose an urgent challenge for reforming the education system as a whole. The prospects for the development of vocational education depend on further improvement of the relevant laws governing the education sector in Ukraine and other important regulatory documents (primarily the National Qualifications Framework, the classifier of professions, documents of the National Qualifications Agency, etc.) Overcoming the challenges in this area, including the elimination of rudiments in the definition of professional direction, will allow to adapt educational documents and the situation in vocational education to the modern level. It is also suggested that outdated professions that do not correspond to modern technologies and processes should be removed from the list and that English-language occupational titles should be introduced, which would bring Ukrainian regulations, standards, and certificates closer to international standards. The latter point points to the prospect of further integration into the European vocational education environment. Thus, when preparing the next decisions in this important area, it is necessary to focus on existing international and European standards, which will be in line with Ukraine's European integration potential in general. There is also a need for a flexible response to changes in the labour market, which can be achieved by establishing cooperation between educational institutions and stakeholders. The latter process requires democratic decision-making, which will also lead to transformations in the vocational education management system in Ukraine. At the same time, the need for harmonisation with European educational systems and the search for the necessary resources to implement them, even in the context of the Russian aggression, remain urgent challenges for vocational education in Ukraine. For this reason, an important topic for further research is to analyse the possibilities of establishing close and mutually beneficial contacts between stakeholders and vocational education institutions.

References

BAKHMAT, Oleg; LISINA, Larysa; UDOVENKO, Iryna; NIKOLENKO, Liudmyla; BUHLAI, Natalia. Development of online and offline academic mobility of students in modern conditions. **Revista Eduweb**, v. 16, n. 3, p. 146–159, 2022. Available at: <https://doi.org/10.46502/issn.1856-7576/2022.16.03.11>

BILLETT, Stephen; CHOY, Sarojni; HODGE, Steven. Enhancing the standing of vocational education and the occupations it serves: Australia. **Journal of Vocational Education & Training**, v. 72, n. 2, p. 270-296, 2020. Available at: <https://doi.org/10.1080/13636820.2020.1751247>.

BUSHMAN, Iryna. Education in the 21st century: philosophical foundations and principles. **Futurity Philosophy**, v. 1, n. 2, p. 4–15, 2022. Available at: <https://doi.org/10.57125/FP.2022.06.30.01>

COLLEY, Helen; JAMES, David; DIMENT, Kim; TEDDER, Michael. Learning as becoming in vocational education and training: class, gender and the role of vocational habitus. **Journal of Vocational Education & Training**, v. 55, n. 4, p. 471-498, 2003. Available at: <https://doi.org/10.1080/13636820300200240>.

DEISSINGER, Thomas. The German dual vocational education and training system as ‘good practice’? **Local Economy**: The Journal of the Local Economy Policy Unit, v. 30, n. 5, p. 557-567, 2015. Available at: <https://doi.org/10.1177/0269094215589311>.

DE VRIES, Henk J.; EGYEDI, Tineke M. Education about Standardization. **International Journal of IT Standards and Standardization Research**, v. 5, n. 2, p. 1-16, 2007. Available at: <https://doi.org/10.4018/jitsr.2007070101>.

EICHHORST, Werner; RODRIGUES-PLANAS, Nuria, SCHMIDL, Richarda; ZIMMERMANN, Klaus*.* A Roadmap to Vocational Education and Training Systems Around the World. **SSRN Electronic Journal**, 2013. Available at: <https://doi.org/10.2139/ssrn.2199793>.

LUZAN, Petro; PASCHENKO, Tetyana; VANINA, Natalia; KOLISNYK, Nadiia. Standardization of vocational education based on competency approach. **ScienceRise: Pedagogical Education**, *[S. l.]*, n. 5 (25), p. 32–35, 2018. DOI: 10.15587/2519-4984.2018.137845. Available at: https://journals.uran.ua/sr\_edu/article/view/137845.

LUZAN, Petro; PASCHENKO, Tetyana; VANINA, Natalia; KOLISNYK, Nadiia**;**  MOSIA, Iryna. **Standardization of the professional training of younger specialists in the agricultural, construction, and mechanical building industries**. Zhytomyr: «Polissia», 2020. ISBN 978-966-655-956-5.

KALENSKYI, Andrii; LUZAN, Petro; VANINA, Nadiia; PASHCHENKO, Tetiana; KRAVETS, Svitlana; PIATNYCHUK, Tetiana. **Standardization of professional education: theory and practice.** Zhytomyr: «Polissia», 2018. 978-966-655-895-7

KORNEIKO, Yulia; TARANGUL, Lubov; DOVZHUK, Viktoria. Traditions and innovations: two poles of education of the future. **Futurity Education**, v. 3, n. 1, p. 5–14, 2023. Available at: <https://doi.org/10.57125/FED.2023.25.03.01>

KORNYTSKA, Larysa; ALFOROF, Andrey; HONCHARUK, Valentyna. Some Aspects of Adapting the Educational Process of Ukrainian Higher Education to the Global Challenges of the XXI Century: A Forecast of the Future. **Futurity Education**, v. 3, n. 2, p. 122–133, 2023. Available at: <https://doi.org/10.57125/FED.2023.06.25.08>

KRYMETS, Liudmila. What must the education of the future be like to be really future? (Attempts of philosophical reflection). **Futurity Philosophy**, v. 1, n. 4, p. 28–41, 2022. <https://doi.org/10.57125/FP.2022.12.30.03>

KOLISNYK, Nadiia. Features of standardization vocational and technical education in Ukraine and abroad: comparative aspect. **Theory and methodology of vocational education**, n. 13, p. 200-211, 2017. Available at: <https://lib.iitta.gov.ua/714853/>

KOVALCHUK, Vasyl; MASLICH, Svitlana; TKACHENKO, Natalia; SHEVCHUK, Svitlana; SHCHYPSKA, Tetiana. Vocational Education in the Context of Modern Problems and Challenges. **Journal of Curriculum and Teaching**, v. 11, n. 8, p. 329, 2022a. Available at: <https://doi.org/10.5430/jct.v11n8p329>.

KOVALCHUK, Vasyl; MASLICH, Svitlana; MOVCHAN, Larysa; SOROKA, Valerii; LYTVYNOVA, Svitlana; KUZMINSKA, Olena.  I.  Digital transformation of vocational schools: problem analysis. **CTE Workshop Proceedings**, v. 9, p. 107-123, 2022b. Available at: <https://doi.org/10.55056/cte.107>.

LI, Junmin; PILZ, Matthias. International transfer of vocational education and training: a literature review. **Journal of Vocational Education & Training**, p. 1-34, 28 Jan. 2021. Available from: <https://doi.org/10.1080/13636820.2020.1847566>. Accessed: 12 Oct. 2023.

MARIONO, Andi; SABAR. The Influence of School Management Information Systems and Teacher’s Social Competence on the Parent Satisfaction of Junior High School Students. **Futurity Education**, v. 3, n. 2, p. 75–98, 2023. Available at: <https://doi.org/10.57125/FED.2023.06.25.05>

MARTÍNEZ-MORALES, Ignacio; MARHUENDA-FLUIXÁ, Fernando. Vocational education and training in Spain: steady improvement and increasing value. **Journal of Vocational Education & Training**, v. 72, n. 2, p. 209-227, 2020. Available at: <https://doi.org/10.1080/13636820.2020.1729840>.

MULDER, Martin; WEIGEL, Tanja; COLLINS, Kate. The concept of competence in the development of vocational education and training in selected EU member states: a critical analysis. **Journal of Vocational Education & Training**, v. 59, n. 1, p. 67-88, 2007. Available at:: <https://doi.org/10.1080/13636820601145630>.

MYRONENKO, Svitlana; DZHYM, Viktor; PROTS, Tetiana; KUBATKO, Alina; SAIENKO, Volodymyr. Formation and activation of a healthy lifestyle through sports. **AD ALTA: Journal of Interdisciplinary Research, Special Issue**, v. 12, n. 02-XXXI, p. 36–40, 2022. Available at: https://pesquisa.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/pt/covidwho-2243624

NOWAK, Barbara; PALINCHAK, Nick. **Bildung, Sozialarbeit, öffentliche Verwaltung und regionale Entwicklung Verfahren der wissenschaftlich Arbeiten Ján Holonič**. Krakow : Uniwersytet Pedagogiczny im. Komisji Edukacji Narodowej w Krakowie, 2020. ISBN 978-83-947579-9-1

POLEZHAEV, Yuriy. The component structure of cultural literacy as a component of the professionalism of the future specialist. **Bulletin of Zaporizhzhya National University: Collection of Scientific Works. Pedagogical sciences,** v. 36, n. 3, p. 103–109, 2021. Available at: https://doi.org/10.26661/2522-4360-2020-3-2-15

SEREDA, Iryna. Orientation of the educational process of the humanities faculties of the university on activation self-education of students. **Pedagogy**, v. 92, n. 8, p. 1159-1180, 2020. Available at: https://www.ceeol.com/search/article-detail?id=907355

STALDER, Barbara Elisabeth; BILLET, Stephen; HODGE, Steven; CHOY, Sarojni; AARKROG, Vibe. **Standing of Vocational Education and the Occupations It Serves**: Current Concerns and Strategies for Enhancing That Standing: Springer International Publishing AG, 2022. ISBN 9783030962364.

STOICHYK, Tetiana. Standardization in the vocational education and training system. **Bulletin of Taras Shevchenko Kyiv National University**, [S. l.], v. 1, n. 7, p. 66–69, 2018. Available at: https://doi.org/10.17721/2415-3699.2018.7.18.

TOEPPER, Miriam; ZLATKIN‐TROITSCHANSKAIA, Olga; KÜHLING‐THEES, Carla. Literature review of international empirical research on transfer of vocational education and training. **International Journal of Training and Development**, 2022. Available at: <https://doi.org/10.1111/ijtd.12276>.

TSEKHMISTER, Yaroslav; KOTYK, Tetiana; MATVIIENKO, Yurii; RUDENKO, Yulia; ILCHUK, Vita. La efectividad de la tecnología de realidad aumentada en la educación STEAM. **Apuntes Universitarios**, *[S. l.]*, v. 12, n. 1, p. 250–267, 2021. DOI: 10.17162/au.v11i5.932. Available at: https://apuntesuniversitarios.upeu.edu.pe/index.php/revapuntes/article/view/932.

VANINA, Natalia. Modernization of professional education standards at the present stage. **Bulletin of the Glukhiv National Pedagogical University named after Oleksandr Dovzhenko**, v. 2, n. 37, p. 52-60, 2018. Available at: https://lib.iitta.gov.ua/714843/

ZHANG, Ke; ASLAN, Ayse Begum. AI technologies for education: Recent research & future directions. **Computers and Education**: Artificial Intelligence, v. 2, p. 100025, 2021. Available at: <https://doi.org/10.1016/j.caeai.2021.100025>.

ZINCHENKO, Viktoria; ROMANUKHA, Olexandr; REVUTSKA, Svitlana; CHEVERDAK, Polina. Information and educational environment for the formation of professional language and speech competences of economic students. **Information technologies and teaching aids,** v. 79, n. 5, p. 184‒198, 2020. Available at: https://journal.iitta.gov.ua/index.php/itlt/article/view/2997