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BRIDGING THE QUALIFICATION GAPS: SETTING UP QUALIFICATION CENTRES IN UKRAINE

СКОРОЧЕННЯ КВАЛІФІКАЦІЙНИХ РОЗРИВІВ: ЗАПУСК КВАЛІФІКАЦІЙНИХ ЦЕНТРІВ В УКРАЇНІ

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This study explores the regulatory basis and applied aspects of qualification centers in Ukraine, focusing on their role in recognizing professional qualifications and addressing qualification gaps. The establishment of qualification centers is grounded in Ukrainian legislation, with the main responsibility of awarding professional qualifications through the validation of non-formal and informal learning based on occupational standards. The qualification center accreditation process is overseen by the National Qualifications Agency, aiming to introduce effective mechanisms for assigning professional qualifications and realizing individuals' right to lifelong education. The establishment of qualification centers faced delays due to the Russian invasion, but as of June 2023, 27 centers are operational, either through accreditation or declaration. These centers cover a total of 132 professional qualifications, and 1,218 certificates have been issued so far. Challenges faced include financial sustainability, capacity-building, and ensuring the recognition of qualifications obtained in other countries. These centers have important links to post-war recovery efforts by facilitating reintegration, reskilling, economic reconstruction, and social cohesion.

Keywords: qualification centers, recognition of qualifications, non-formal and informal learning, occupational standards, labour market.

Дослідження присвячено вивченню нормативної бази й практичних аспектів діяльності кваліфікаційних центрів в Україні з фокусом на їх ролі у визнанні професійних кваліфікацій та вирішенні проблем недостатньої кваліфікації. Створення кваліфікаційних центрів ґрунтується на українському законодавстві, згідно з яким до основної відповідальності цих центрів віднесено присвоєння професійних кваліфікацій шляхом валідації результатів неформального та інформального навчання. Нормативні положення, що були прийняті Кабінетом Міністрів України, визначають завдання та функції кваліфікаційних центрів. Ці центри оцінюють і визнають результати навчання, присвоюють професійні кваліфікації та визнають кваліфікації, отримані в інших країнах.

Для забезпечення актуальності кваліфікацій та їхньої уніфікованості використовуються професійні стандарти, наразі відсутність таких стандартів унеможлиблює діяльність центру. Процес акредитації кваліфікаційних центрів здійснюється Національним агентством з кваліфікацій. У зв'язку з російською агресією процес запуску кваліфікаційних центрів затримувався, проте на 6 червня 2023 року вже функціонують 27 центрів, які забезпечують присвоєння 132 професійних кваліфікацій. Ці центри діють як на основі акредитації, так і на основі декларації (що зумовлено умовами воєнного стану). На 6 червня 2023 року в Реєстрі кваліфікацій міститься інформація про 1218 сертифікатів про присвоєння професійних кваліфікацій, виданих центрами. Проведений аналіз підтверджує значний прогрес, досягнутий у створенні та розширенні кваліфікаційних центрів в Україні, попри складнощі, зумовлені збройним конфліктом. Це свідчить про зобов'язання покращувати визнання і підтвердження професійних кваліфікацій, підтримувати індивідуальний кар'єрний розвиток та поліпшувати загальний стан ринку праці. З-поміж викликів, з якими стикаються кваліфікаційні центри, визначено такі, як: фінансова стійкість, розвиток кадрів та забезпечення визнання кваліфікацій, отриманих в інших країнах. Надалі ці центри повинні відіграти важливу роль у повоєнному відновленні, сприяючи реінтеграції, перепідготовці, економічній реконструкції та соціальній єдності.

Ключові слова: кваліфікаційні центри, визнання кваліфікацій, неформальне та інформальне навчання, професійні стандарти, ринок праці.

Introduction. The increasing adoption of technology and the growing digitization of industries cause substantial changes in the labor market. According to the World Economic Forum (2023), these changes are expected to create more jobs overall, despite causing significant churn [5]. Consequently, it is not surprising that the modern labor market is characterized, as the European Commission (2023) points out, by several factors, such as horizontal mobility, skill mismatches between demand and supply, and qualification gaps [3].

Within the European Union, comprehensive policies have been established to address the recognition of learning outcomes from non-formal and informal education, encompassing both vertical and horizontal approaches [2; 6]. On the other hand, Ukraine is still in the early stages of implementing similar measures. In 2017, the Law of Ukraine «On Education» laid down the regulatory framework for qualification centers. As of 2022, these centers have commenced their operations in Ukraine, marking the initial steps taken by the country in this direction.

Overview of recent studies. The international community [2; 8] acknowledges the significance of lifelong learning, the establishment of non-formal education systems, and the recognition of prior learning outcomes in addressing qualification gap challenges. Moreover, the introduction of micro-credentials is recognized as a crucial step in overcoming these issues.

In international studies [7; 9; 10], various approaches to recognizing learning outcomes from non-formal and informal education are discussed, alongside strategies for bridging qualification gaps. While Ukrainian academic discourse includes studies on the competence-based approach [4] and the synergistic

transformation of the national qualification system [1], there is currently no existing research specifically focused on the activities of the newly established qualification centers.

The aim of the the study. The objective of this study is to delve into the regulatory foundation and practical aspects of qualification centers' operations in Ukraine. It seeks to examine the regulatory framework that governs these centers and explore how they function in practice. Additionally, the study aims to identify and discuss the challenges associated with establishing a comprehensive system for the recognition of qualifications in Ukraine.

The main research results. Findings from the analysis of regulations. The key findings indicate that, as per Ukrainian legislation, qualification centers are primarily responsible for granting professional qualifications by validating non-formal and informal learning (VNFIL) at levels 2–6 of the National Qualification Framework.

In April 2021, the Ministry of Education and Science of Ukraine approved a standard regulation outlining the main tasks and functions of qualification centers. These centers are authorized to perform the following activities: (1) assess and recognize learning outcomes, particularly those acquired through non-formal or informal education; (2) assign or confirm professional qualifications; and (3) recognize professional qualifications awarded in other countries within the territory of Ukraine.

In June 2021, the Resolution of the Cabinet of Ministers of Ukraine No. 620 was introduced to approve the Regulations on the Register of Qualifications. This resolution established the requirements for the information that should be included in the national register concerning qualification centers. The information to be

presented in the register encompasses not only the details and necessary information about the qualification centers themselves but also extends to include information about the experts responsible for accreditation, the certificates issued by the centers, and the occupational standards associated with the qualifications. This comprehensive approach ensures that the register contains a wide range of pertinent information related to the qualification centers and their activities.

Additionally, the Resolution of the Cabinet of Ministers of Ukraine No. 576 was adopted, which approved the Procedure for the recognition in Ukraine of professional qualifications obtained in other countries. This resolution outlines the specific steps and guidelines to be followed when recognizing professional qualifications obtained from foreign countries within the territory of Ukraine. The procedure provides a structured framework for assessing and validating the equivalence and compatibility of foreign qualifications, ensuring a transparent and standardized process for recognizing professional credentials earned abroad.

In September 2021, the Cabinet of Ministers of Ukraine issued two regulations specifically pertaining to the functioning of qualification centers. The first provision focuses on the procedures for awarding professional qualifications by qualification centers. It outlines the specific steps, criteria, and requirements that qualification centers must follow when granting professional qualifications to individuals.

The second provision relates to the accreditation process of qualification centers. It sets out the procedures and criteria for accrediting qualification centers, ensuring that they meet the necessary standards and criteria to operate effectively and maintain the quality of their services.

These provisions serve to establish clear guidelines and requirements for qualification centers in Ukraine, promoting transparency, consistency, and the overall effectiveness of their operations.

The analysis of regulations (Law of Ukraine «On Education», resolutions of Cabinet of Ministers of Ukraine) highlights the crucial role of occupational standards in ensuring the relevance of qualifications. It is a mandatory requirement for qualification centers to have an associated occupational standard for the activities they are responsible for. Operating without an occupational standard is not permitted for these centers.

When an individual's knowledge and competence align with the requirements specified in the occupational standard, and they pass the theoretical and practical assessments successfully, the qualification center will issue a certificate of professional qualification. This certificate holds official recognition by the state and serves as the basis for securing employment opportunities.

The analysis also reveals that any current regulations provide specific guidelines regarding payment arrangements. Candidates undergoing the validation procedure have the option to bear the costs themselves or have their employers cover the expenses. The exact payment amount is determined based on the complexity of the assessment required for each individual case.

It is worth mentioning the legal demand for a qualification centre to go through the accreditation process. The accreditation of qualification centers in Ukraine is carried out by the National Qualifications Agency. The agency relies on reports provided by experts in accreditation who are appointed by the agency itself. The primary objective of accreditation is to establish effective mechanisms for assigning professional qualifications. By doing so, the accreditation process aims to uphold an individual's right to lifelong education and ensure the provision of quality qualification services.

The regulations governing the accreditation process of qualification centers in Ukraine establish six criteria that must be met for accreditation. These criteria are as follows:

1. The qualification center must have provisions in their charter that relate to the activities associated with the functioning of the qualification center.

2. The center should have evaluators of professional qualifications, with a minimum requirement of two evaluators for each professional qualification. These evaluators must possess appropriate qualifications and expertise.

3. The qualification center must have an approved procedure in place for assigning and confirming professional qualifications.

4. The center should possess control and evaluation materials necessary for the implementation of evaluation procedures.

5. Sufficient material and technical resources must be available within the qualification center to conduct assessment procedures effectively.

6. The center is required to have a website where information regarding the qualification center, relevant professional qualifications,

and the award/validation procedure is publicly accessible.

These criteria serve as essential benchmarks to ensure the accreditation of qualification centers is carried out effectively and that they meet the necessary standards and requirements for providing quality qualification services.

In 2021, the National Qualifications Agency in Ukraine took several significant steps to strengthen the accreditation process. Firstly, it developed and adopted its own procedure for the selection of experts who would participate in the accreditation process. This procedure outlines the criteria and guidelines for selecting qualified individuals who possess the necessary expertise and qualifications to assess qualification centers.

Additionally, the agency formulated guidelines on accreditation, providing detailed instructions and standards for evaluating and accrediting qualification centers. These guidelines serve as a reference for both the experts involved in the accreditation process and the qualification centers seeking accreditation.

Furthermore, the National Qualifications Agency organized an online course specifically designed for the selected experts. This course aims to enhance their knowledge, skills, and understanding of the accreditation process, ensuring a standardized and consistent approach in evaluating qualification centers.

These initiatives demonstrate the agency's commitment to improving the accreditation process by establishing clear procedures, guidelines, and providing training opportunities for experts involved in accreditation.

It is important to note that the development of the regulatory framework for qualification centers in Ukraine was undertaken through a social dialogue format. This involved active participation and collaboration between various stakeholders, including the Joint Representative Body of the Employers at the national level, the Joint Representative Body of Representative All-Ukrainian Associations of Trade Unions, the Ministry of Economy, the Ministry of Social Policy, and, most notably, the Ministry of Education and Science of Ukraine. The engagement of multiple stakeholders in this process ensures that a broad range of perspectives and expertise is considered, fostering a more inclusive and comprehensive regulatory framework for qualification centers in Ukraine.

Findings from the analysis of centres' functioning. The full-scale Russian invasion of Ukraine had a significant impact on the launch of qualification centers in the country, resulting

in a slowdown of the process. It wasn't until June 2022 that the first qualification center was accredited by the National Qualifications Agency. However, despite the challenges posed by the conflict, subsequent efforts were made to establish and accredit additional qualification centers.

In response to the period of martial law, the Government of Ukraine introduced measures to facilitate economic activity for entities operating within the country. During this period, economic entities were allowed to acquire the right to conduct economic activities by simply submitting a declaration to the relevant licensing and permitting authorities, as well as entities providing public services. This measure aimed to streamline the process and eliminate unnecessary bureaucratic hurdles.

However, it is important to note that the Resolution of the Cabinet of Ministers of Ukraine also outlined that entities obtaining the right to conduct economic activity through this declaration process must subsequently obtain regular permissions within three months after the termination or cancellation of martial law. This requirement ensures that proper authorization and compliance are established once the exceptional circumstances are lifted.

During this period, some employers took advantage of this opportunity to initiate the recognition process for the professional qualifications of their workers. This recognition process may have provided an avenue for individuals to have their qualifications formally acknowledged and validated, enhancing their employment prospects and professional development.

Due to the ongoing war, the establishment of qualification centers in Ukraine has taken a two-track approach: accreditation and declaration. As of June 6, 2023, there are 27 fully operational and legitimate qualification centers in Ukraine.

Among these centers, 16 have received accreditation certificates from the National Qualifications Agency and have been included in the Register of Qualifications. These accredited centers cover 28 professional qualifications.

Additionally, there are 11 qualification centers operating through declarations. These centers have their declarations published on the website of the National Qualifications Agency. The documents indicate that these centers are working with 125 professional qualifications.

When analyzing the data from both types of centers and taking measures to avoid duplication, it can be concluded that a total of 27 qualification

centers currently operating in Ukraine cater to 132 professional qualifications.

Among the 27 centers, 16 were established by vocational education and training institutions, 1 by a research institute, and 10 by commercial enterprises or for-profit organizations. The involvement of various stakeholders in creating qualification centers underscores the importance employers place on adopting diverse approaches to develop the skills of their current and future workforce. The establishment of a qualification center and the implementation of a transparent procedure for recognizing prior learning results can be a valuable asset in this endeavor.

The data shown in Figure 1 reveals an uneven distribution of qualification centers across the 25 different regions of Ukraine. It can be observed that only 11 regions have established such centers, with six of them having just one center operating within their respective regions.

As of June 6, 2023, a total of 1,218 certificates on professional qualifications have been issued by the qualification centers, serving as official recognition of individuals' competencies and qualifications in their respective fields. This considerable number of certificates signifies significant progress in the recognition and validation of professional qualifications in Ukraine through the operation of qualification centers, reflecting a commitment to enhancing individuals' employability and career prospects.

However, the analysis highlights a regional imbalance in the activities of the qualification centers. The majority of certificates, 1,055 (87%),

were issued in the Zaporizhya region, while 86 (7%) were issued in the Odesa region. The remaining 78 (6%) certificates are distributed among five regions, namely Dnipropetrovsk, Kyiv, Poltava, Vinnytsa, and Volyn. It should be noted that there are no records of issued certificates in four regions where centers are currently operating.

Figure 2 presents the recent dynamics of the qualification centres activities.

Based on our analysis of the data provided by the Agency in Figure 3, there is a notable discrepancy between the most popular qualifications covered by the qualification centers and the qualifications that are actually applied for and issued certificates.

The presence of a significant gender gap is evident in the distribution of certificates issued by qualification centers, with 97 percent of all certificates being held by men. This discrepancy highlights the current trend of predominantly issuing certificates in occupations that are traditionally male-dominated. Some of these occupations include electric gas welder, wheel vehicle repair locksmith, refractory worker, gas cutter, among others.

Moreover, there is a noticeable misalignment between the issued qualifications and the labor market demands. This discrepancy can be attributed to the fact that the National Qualifications Agency does not determine which qualification centers to create, where, and for which qualifications. Instead, this responsibility falls upon individuals or organizations engaged in the recognition of results from non-formal and

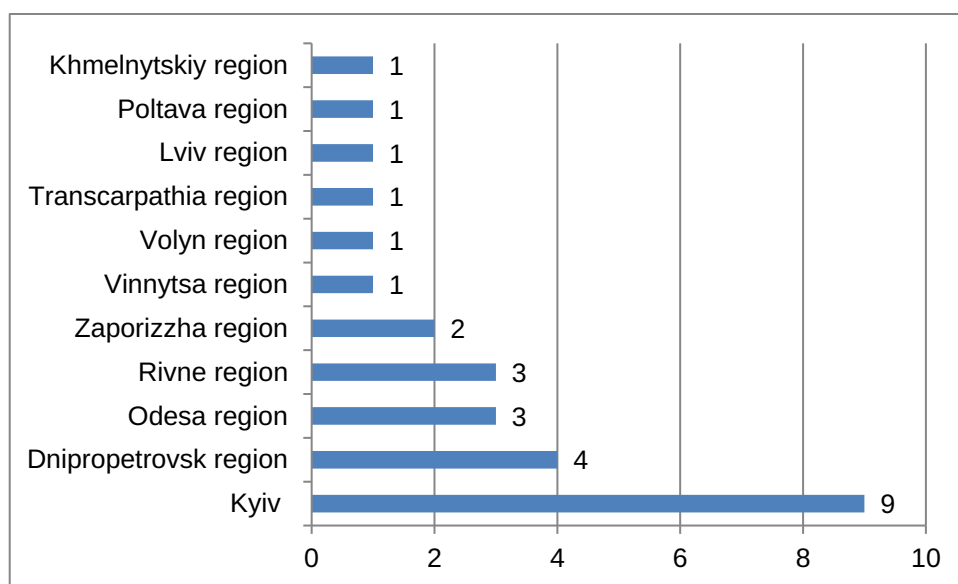


Figure 1. Number of qualification centres in regions of Ukraine as of 6 of June, 2023

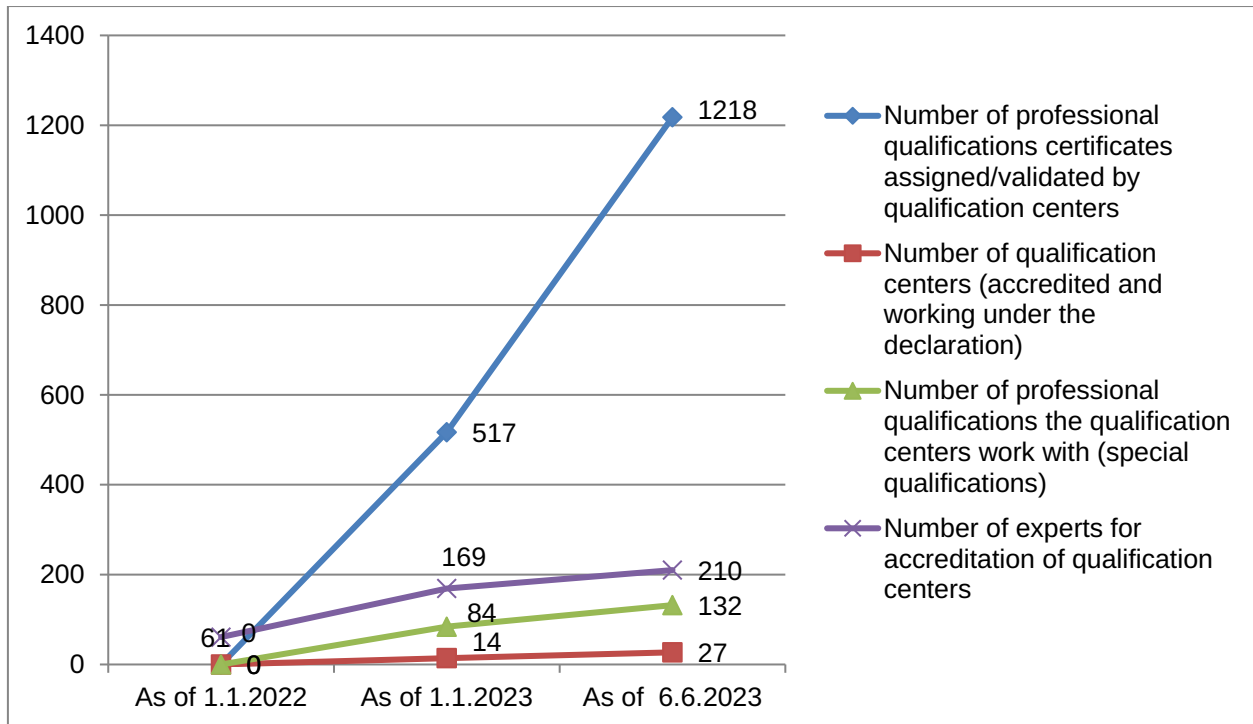


Figure 2. Dynamics of qualification centers activities in 2022–2023

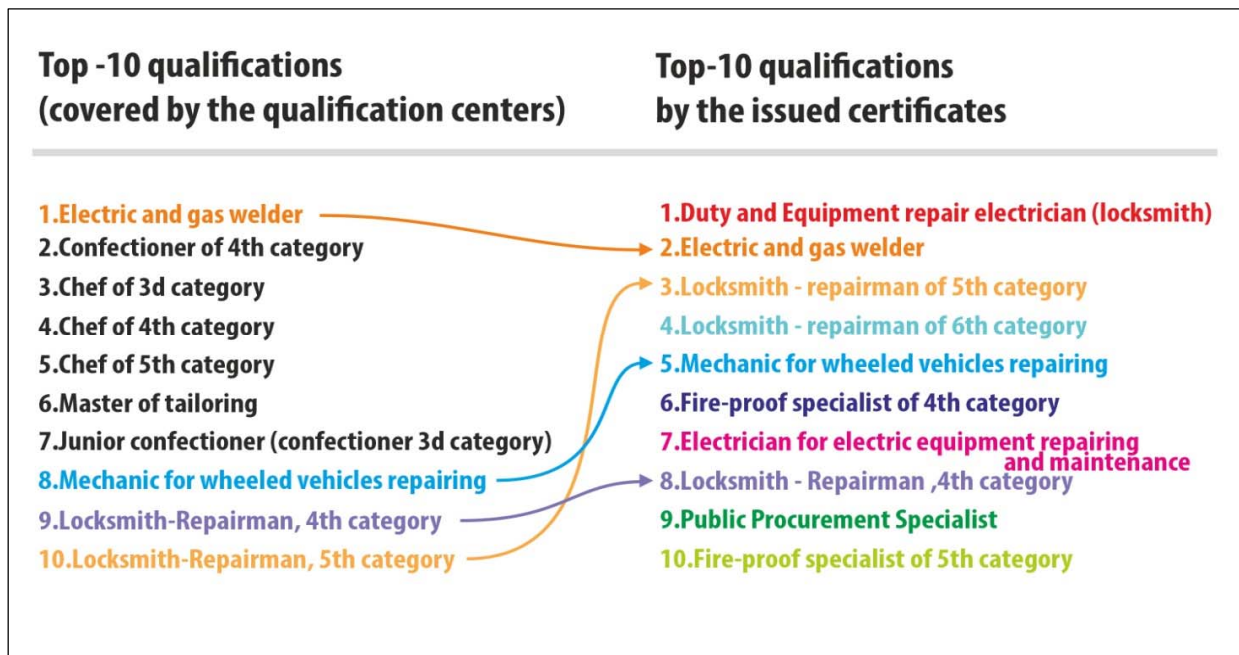


Figure 3. Top-10 professional qualifications in qualification centers (as of June 6th, 2023)

sometimes formal education, who possess a deep understanding of labor market relevance. Qualification centers are typically established and operate within specific occupational areas or industries. They are focused on providing qualification services within these designated fields. This specialization allows qualification centers to tailor their operations and expertise

to meet the specific needs and requirements of the respective industries or particular employees they serve.

Identified challenges. Through training activities, engagement with stakeholders, and the findings of statistical analysis, several challenges and problems associated with qualification centers in Ukraine have emerged.

One of the key challenges is the limited awareness and understanding of qualification centers among the general public, employers, and potential beneficiaries. Many individuals may not be familiar with the concept of qualification centers, their role, and the benefits they offer. This lack of awareness can hinder the uptake and utilization of qualification recognition services.

Certain geographical areas of Ukraine have limited access to qualification centers, resulting in unequal opportunities for individuals to have their qualifications recognized and validated.

The establishment and operation of qualification centers require adequate resources, including funding, trained staff, and infrastructure. Limited resources could pose challenges in terms of capacity building, conducting assessments, and providing necessary support services to applicants.

Alignment with occupational standards could be also a problem. Ensuring the alignment of qualification centers with relevant occupational standards can be a complex task. The continuous updating and adaptation of qualification recognition processes to match evolving industry requirements and skill demands can pose a challenge. Additionally, the limited number of elaborated occupational standards in Ukraine (as of June 1st 2023, only 277 standards existed) further complicates the alignment process.

The crucial issue is maintaining consistent quality assurance and standardization across all qualification centers. It is essential to establish robust mechanisms to monitor and evaluate the performance and effectiveness of the centers, ensuring the reliability and credibility of the qualifications awarded.

The newly established system of qualification centers needs effective integration with the education and employment sectors. Collaboration with educational institutions, employers, and industry bodies is important for aligning qualification recognition with labor market needs and ensuring the relevance and value of the qualifications awarded. However, some educational institutions perceive qualification centers as competitors in the market for educational services.

Addressing these challenges requires continuous efforts from relevant stakeholders, including government bodies, qualification centers, educational institutions, employers, and professional associations. By addressing these challenges, qualification centers can enhance their impact and contribute to the development of a skilled and qualified workforce in Ukraine.

Moreover, centres may provide a mechanism for individuals to have their skills and knowledge gained outside of formal education recognized, thus promoting lifelong learning and enabling individuals to showcase their full range of abilities.

Further developments. When discussing the perspectives of qualification centers, it is indeed worth highlighting their potential role in post-war recovery efforts in Ukraine. Here are some ways in which they can contribute:

Reintegration and Reskilling: Qualification centers can contribute to the reintegration of individuals affected by the war by offering opportunities for reskilling and upskilling. In addition to validating existing competences, these centers can provide short-term training programs or micro-credentials. They may assist individuals in acquiring new skills and validating them. This support enables individuals to re-enter the workforce and rebuild their lives with enhanced skills.

Economic Reconstruction: Post-war recovery often involves rebuilding and revitalizing the economy. Qualification centers can support this process by providing a skilled and competent workforce that meets the evolving needs of industries and businesses. By aligning qualifications with market demands, they help facilitate economic reconstruction and growth.

Enhancing Employability: Qualification centers contribute to improving the employability of individuals, including those directly affected by the war. By validating and recognizing skills acquired during conflict or displaced circumstances, these centers empower individuals to showcase their capabilities to potential employers, increasing their chances of securing meaningful employment.

Fostering Entrepreneurship: Qualification centers can also support entrepreneurship and self-employment initiatives. By offering training and certification in business-related skills, such as entrepreneurship, financial management, and marketing, they equip individuals with the knowledge and competencies needed to start and manage their own businesses, contributing to economic recovery and resilience.

Building Social Cohesion: Qualification centers provide opportunities for individuals from diverse backgrounds, including the internally displaced persons, to engage in skill development. By fostering inclusive environments and promoting social cohesion, these centers contribute to post-war reconciliation, integration, and community building.

Supporting Community Development: Qualification centers can extend their services to local communities affected by the war, offering training programs, workshops, and vocational courses. This supports community development by enhancing the skills and capacities of community members, fostering economic empowerment, and creating sustainable livelihood opportunities.

Also, qualification centers in Ukraine may actively contribute to the country's Eurointegration policy objectives by aligning with European standards, promoting labor mobility, enhancing competitiveness, supporting educational reforms, fostering international cooperation, and strengthening institutional capacities.

Conclusions. Qualification centers in Ukraine play a crucial role in addressing labor market challenges and promoting skills development. They offer formal recognition and validation of professional qualifications, supporting individuals in their career paths

and entrepreneurial endeavors. The regulatory framework for qualification centers has been established, albeit with some delays due to external factors.

The availability of both accreditation-based and declaration-based centers provides flexibility in their establishment, ensuring adaptability in challenging circumstances such as conflict or martial law. These centers have the potential to contribute significantly to post-war recovery efforts by facilitating reintegration, reskilling, and economic reconstruction. The ongoing development and operation of qualification centers are vital in shaping Ukraine's qualification recognition system and promoting integration into the European context.

Despite challenges, qualification centers in Ukraine are well-positioned to address skills gaps, promote lifelong learning, and support individuals and industries in their pursuit of excellence and competitiveness in the labor market.

REFERENCES:

1. Semigina, T. & Balanyuk, Y. (2020). Rozvytok v Ukrayini mekhanizmiv derzhavnoho rehulyuvannya systemy profesiynykh kvalifikatsiy [Development of mechanisms of state regulation of the system of professional qualifications in Ukraine]. In: *The system of public administration in the context of decentralization of power* (pp. 129–146). Riga: Baltija Publishing. (in Ukrainian)
2. Semigina, T., Balanyuk, Y. & Semenets-Orlova, I. (2022). Polityka Yevropeys'koho Soyuzu shchodo vzayemnoho vyznannya profesiynykh kvalifikatsiy [Policy of the European Union regarding mutual recognition of professional qualifications]. *Scientific works of MAUP. Political science and public administration*, 3, 96–105. (in Ukrainian)
3. European Commission (2023). *Annual report on intra-EU labour mobility 2022*. Available at: <https://bit.ly/3P3qyR8>.
4. Baranovska, L. V., Serhienko, V. P. & Slabko, V. M. (2022). Competence-based approach to the training of specialists in the sphere of management of quality of education in the conditions of the master's degree. *Zhytomyr Ivan Franko State University Journal. Pedagogical Sciences*, 3 (110), 116–129.
5. WEF (2023). *Future of Jobs 2023: These are the fastest growing and fastest declining jobs*. Available at: <https://bit.ly/3IZVgXG>.
6. Lauringson, A. & Lüske, M. (2021). *Institutional set-up of active labour market policy provision in OECD and EU countries: Organisational set-up, regulation and capacity*. Available at: <https://bit.ly/43Oujhn>.
7. Polmer, M., Chance, S., Hadgraft, R.G. & Shaw, C. (2023). Informal Learning as Opportunity for Competency Development and Broadened Engagement in Engineering. In: Johri, A., ed. *International Handbook of Engineering Education Research* (pp. 312–335). New York: Routledge.
8. Eurostat (2023). *Sustainable development in the European Union – Monitoring report on progress towards the SDGs in an EU context*. Available at: <https://bit.ly/45SKnRb>.
9. Tan, L.M., Laswad, F. & Chua, F. (2022). Bridging the employability skills gap: going beyond classroom walls. *Pacific Accounting Review*, 34(2), 225–248.
10. Trenerry, B. et al. (2021). Preparing workplaces for digital transformation: An integrative review and framework of multi-level factors. *Frontiers in Psychology*, 12. DOI: <https://doi-org.ru.idm.oclc.org/10.3389/fpsyg.2021.620766>.

СПИСОК ВИКОРИСТАНИХ ДЖЕРЕЛ:

1. Семігіна Т., Баланюк Ю. Розвиток в Україні механізмів державного регулювання системи професійних кваліфікацій. *The system of public administration in the context of decentralization of power*. Riga : Baltija Publishing, 2020. С. 129–146.

2. Семигіна Т., Баланюк Ю., Семенець-Орлова І. Політика Європейського Союзу щодо взаємного визнання професійних кваліфікацій. *Наукові праці МАУП. Політичні науки та публічне управління*. 2022. № 3. С. 96–105.
3. Annual report on intra-EU labour mobility 2022 / European Commission, 2023. URL: <https://bit.ly/3P3qyR8>.
4. Baranovska L. V., Serhienko V. P., Slabko V. M. Competence-based approach to the training of specialists in the sphere of management of quality of education in the conditions of the master's degree. *Zhytomyr Ivan Franko State University Journal. Pedagogical Sciences*. 2022. Vol. 3 (110). P. 116–129.
5. *Future of Jobs 2023: These are the fastest growing and fastest declining jobs* / WEF, 2023. URL: <https://bit.ly/3IZVgXG>.
6. Lauringson A., Lüske M. Institutional set-up of active labour market policy provision in OECD and EU countries: Organisational set-up, regulation and capacity. URL: <https://bit.ly/43Oujhn>.
7. Palmer M., Chance S., Hadgraft R. G., Shaw C. Informal Learning as Opportunity for Competency Development and Broadened Engagement in Engineering. *International Handbook of Engineering Education Research* / Ed. by A. Johri. New York: Routledge. 2023. P. 312–335.
8. Sustainable development in the European Union – Monitoring report on progress towards the SDGs in an EU context / Eurostat, 2023. URL: <https://bit.ly/45SKnRb>.
9. Tan L. M., Laswad F., Chua F. Bridging the employability skills gap: going beyond classroom walls. *Pacific Accounting Review*. 2022. Vol. 34(2). P. 225–248.
10. Trenerry B. et al. Preparing workplaces for digital transformation: An integrative review and framework of multi-level factors. *Frontiers in Psychology*, 2021. Vol. 12. DOI: <https://doi-org.ru.idm.oclc.org/10.3389/fpsyg.2021.620766>.