



# Understanding the needs of Ukrainian Teacher Training Institutions

**UNESCO Policy Paper**

**March 2025**

UNESCO has launched a component on Teacher Professional Development (TPD) which aims to support Teacher Training Institutions (TTIs) in Ukraine in different areas of action. These include developing TPD training courses to address gaps, enhancing digital solutions for teacher training course delivery, strengthening norms, protocols and standards for TPD provision and developing an online teacher trainer community of practice.

This policy paper provides an overview of TPD provision by Ukrainian TTIs and non-state providers, identifies key challenges and gaps in the current system, and offers recommendations to enhance the sustainability, effectiveness, and content of TPD courses in Ukraine.

This paper is part of the Global Partnership for Education (GPE)-funded programme 'Strengthening Resilience of Education Systems in Ukraine for Emergency Response and Recovery', implemented by UNESCO.

# Contents

Acknowledgements .....	3
Abbreviations .....	4
Overview .....	5
Background .....	6
Summary .....	7
Key findings and policy considerations .....	8
1. Institutional framework governing teacher professional development.....	8
1.1 Laws and regulations governing the activities of Teacher Training Institutes .....	8
1.2 Absence of external quality assurance mechanisms for teacher professional development delivery .....	9
1.3 Overlapping responsibilities and authorities of the Institute of Education Content Modernization and the Ukrainian Institute of Education Development .....	9
1.4 Non-state teacher professional development providers .....	10
2. Capacity analysis of Teacher Training Institutions .....	11
2.1 Shortages of qualified staff .....	11
2.2 Part-time engagement of pedagogical professionals .....	11
2.3 Teacher professional development for the staff of Teacher Training Institutions.....	12
2.4 Teacher trainer networks and teacher communities of practice .....	12
3. Teacher professional development course content .....	13
3.1 Review, amendment and development of courses in Teacher Training Institutions .....	13
3.2 Teacher professional development content in the context of priority areas in educational policy .....	14
3.3 Potential for further improvements in teacher professional development content .....	14
3.4 Gaps in the course content of Teacher Training Institutions .....	15
4. Infrastructure needs in Teacher Training Institutions .....	16
5. Funding sources of Teacher Training Institutions .....	17
6. Conclusion .....	18
References .....	19

## Acknowledgements

This paper was developed by UNESCO in the framework of the Teacher Professional Development component of the GPE-funded programme 'Strengthening Resilience of Education Systems in Ukraine for Emergency Response and Recovery' implemented in Ukraine. It was authored by Olena Hloba and Helen McLaren with contributions from Ieva Raudonyte and Maksym Zavalnyy.

UNESCO would like to thank the Ministry of Education and Science of Ukraine (MESU) and National Advisor Committee members who provided valuable insights for the review of the paper: Nataliya Sofiy, Olena Kuzmynska and Tamara Pushkaryova.

This project is led by UNESCO's Section for Teacher Development, under the direction of Carlos Vargas and Ieva Raudonyte with the support of Maksym Zavalnyy and Taisiia Lipetska.

## Abbreviations

AI	Artificial Intelligence
CMU	Cabinet of Ministers of Ukraine
CPD	Centre for Professional Development
HEI	Higher Education Institution
IECM	Institute of Education Content Modernization
IEA	Institute of Educational Analytics
LMS	Learning Management System
MESU	Ministry of Education and Science of Ukraine
MEU	Ministry of Economy of Ukraine
MFU	Ministry of Finance of Ukraine
MJU	Ministry of Justice of Ukraine
MLU	Ministry of Labor of Ukraine
NAQA	National Agency for Higher Education Quality Assurance
NGO	Non-Governmental Organization
NUS	New Ukrainian School
SSEQ	State Service of Education Quality
TPD	Teacher Professional Development
TTI	Teacher Training Institution
UCEQA	Ukrainian Centre of Education Quality Assessment
UIED	Ukrainian Institute of Education Development
UNESCO	United Nations Educational, Scientific and Cultural Organization

## Overview

As part of the Global Partnership for Education (GPE) funded programme ‘Strengthening Resilience of Education Systems in Ukraine for Emergency Response and Recovery’, UNESCO launched a component on Teacher Professional Development (TPD). This component aims to support Teacher Training Institutions (TTIs)<sup>1</sup> in Ukraine in different areas of action. These include developing TPD training courses to address gaps, enhancing digital solutions for teacher training course delivery, strengthening norms, protocols and standards for TPD provision and developing an online teacher trainer community of practice.

This policy paper supports these areas of action and contains the following information:

- An overview of TPD provision by Ukrainian TTIs
- General overview of TPD provision by non-state providers
- Key challenges to the sustainability and effectiveness of the current TTI-delivered TPD system
- Major gaps in the TPD course content offered by TTIs
- Recommendations to improve the sustainability and effectiveness of Ukrainian TTIs as well as the TPD course content they offer.

This policy paper was informed by a survey of TTIs on their capacity to provide TPD (henceforth referred to as the **TTI Capacity Survey**), interviews with TTI representatives and other relevant organizations<sup>2</sup> and a review of relevant literature. In addition, information from a survey of TTIs on digital infrastructure (henceforth referred to as the **TTI Digital Survey**) and a TTI consultation session on teacher course content gaps and digital infrastructure were also integrated into the paper where relevant (UNESCO, 2023a; 2023b).

---

<sup>1</sup> TTIs include Regional Institutes of Postgraduate Pedagogical Education (referred to as ‘Regional Institutes’) and academies of continued education.

<sup>2</sup> Representatives from the following organisations were interviewed: MESU, Institute of Education Content Modernization (IECM), Institute of Educational Analytics (IEA) and the MESU Reform Support Team.

## Background

Ukraine has 25 in-service TTIs (MESU, 2024c). TTIs are largely funded from the state and local budgets, and they support Ukrainian teachers in improving their general and professional competencies in line with approved professional standards (CMU, 2019a; MESU, 2022a). The TPD delivery by TTIs is decentralized. TTIs use different Learning Management System (LMS) platforms as well as develop and use their own content and training materials with differing course durations and teaching approaches (UNESCO, 2023b; MESU, 2010). Under Ukrainian legislation, teachers are required to complete at least 150 hours of TPD over 5 years<sup>3</sup> (CMU, 2019b; Sofiy, 2017). Completion of these TPD courses is linked to a teacher career ladder and the possibility of receiving a promotion (Sofiy, 2017). Following the deregulation of the TPD market in 2017 (Verkhovna Rada, 2017), TTIs are not the only actors in the Ukrainian TPD market. Although the primary focus of this paper will be TTIs, it will also cover the role and organization of non-state actors in teacher training.

To support the education system and cater to teacher needs, the TPD provision at Ukrainian TTIs must be flexible and responsive to educational reforms, evolving digital technologies and the challenges caused by war. In recent years, TTIs have been actively involved in the provision of teacher training in line with the New Ukrainian School (NUS) reform, which began to be widely implemented in 2018<sup>4</sup> through – among other initiatives – the development and implementation of TPD courses in line with the requirements and principles of this reform (CMU, 2016). The NUS reform is characterized by child-centered and competence-based teaching approaches; updated school curriculum; and school decentralization and autonomy (MESU, 2016). Another key priority of the Ukrainian government is the digital transformation of state services and society, particularly in education, which also directly affects TTIs.<sup>5</sup>

Concurrently, TTIs grapple with challenges stemming from ongoing war. For example, almost all TTIs provide teacher training in distance or hybrid formats due to security considerations and recommendations on distance learning published by the Ministry of Education and Science of Ukraine (MESU). In addition, human capacity and funding challenges faced by the TTIs have been exacerbated by the war. Demands on teacher education have increased with a growing focus on safety skills and crisis-sensitive education driven by the ongoing threats to the physical safety and psychological well-being of both teachers and students.

---

<sup>3</sup> This minimum TPD hours requirement is lower for preschool and extracurricular teachers.

<sup>4</sup> Implementation of the NUS reform at the level of the pilot schools commenced in 2017.

<sup>5</sup> MESU and the Ministry of Digital Transformation of Ukraine are the principal entities steering policies focused on the digital transformation of education (CMU, 2020a; Safonov et al., 2022).

## Summary

The following is a summary of the main findings of the study and potential solutions to improve the provision of TPD by TTIs in Ukraine:

1. Certain laws and resolutions directly governing and/or indirectly affecting the activities of Teacher Training Institutions (TTIs) require adaptations to align with the current Ukrainian educational landscape and the needs of TTIs.

Where feasible, consideration should be given to engaging TTI professionals in the working groups that develop laws and regulations governing or affecting TTI activities.

2. TTIs conduct quality assurance internally but there is an absence of external quality assurance mechanisms.

The development and introduction of external quality assurance mechanisms could encourage consistently high quality teacher professional development (TPD) standards across TTIs. However, these should be developed with endorsement from TTIs and well-integrated within the overall system.

3. Non-state TPD providers constitute a growing, diverse and unregulated teacher training sector. They are popular with Ukrainian teachers due to the more diverse courses offered compared to TTIs and the simpler application process. Nevertheless, the minimal requirements for entering the TPD market – such as the lack of licensing or accreditation – runs the risk of enabling lower-quality providers to enter and offer their services.

The development and introduction of stricter requirements for non-state TPD providers to access the TPD market should be considered.

4. The majority of TTIs experience challenges related to staff shortages and these are particularly acute for technical staff.

Enhancing the attractiveness of technical staff roles in TTIs and offering better remuneration for part-time teachers could help address staff shortages in TTIs.

5. The majority of TTIs facilitate networks for teacher trainers, mentors and coaches as well as communities of practice to support teachers.

Further investigation into the quality and efficacy of these networks and communities of practice would be advantageous to ensure that a high-quality support system exists for educational staff.

6. Although TTIs cover a wide range of topics, including the NUS reform (grades 1-6), crisis-sensitive education, inclusive education and digital competencies, there remain significant gaps in their course content. For instance, courses on the NUS reform for grades 7-9, the application of artificial intelligence (AI) in education, overcoming educational losses and safety skills are either unavailable or limited with TTIs but are offered by non-state providers.

7. Based on the results of the TTIs Digital Survey, they have access to the internet, basic digital equipment and LMS platforms. However, their digital equipment is often outdated and requires upgrading.

It is equally important for TTIs to receive the same digital and laboratory equipment as other educational institutions, including those used in modern physics, chemistry and biology classrooms as well as STEM laboratories, so that these tools are integrated into teacher training and can be utilized by teachers after completing their training.

8. Local budgets constitute the primary source of TTI funding. Facilitating stable and equitable funding to TTIs in this way should be prioritized.

Priority should also be given to allocating state educational subventions to TTIs for the implementation of the NUS reform in 2024<sup>6</sup> and beyond, as well as the inclusion of TTIs in the funding of subventions for shelters.

---

<sup>6</sup> In 2023, the use of educational subvention funds from the state budget to local budgets was ensured in the area of “professional development of pedagogical staff: principals, deputy principals and teachers of educational institutions that will ensure the implementation of the State Standard of Basic Secondary Education in the first (adaptation) cycle of basic secondary education in the 2023/24 academic year, and pilot classes; training of teacher trainers.” At the time this paper was drafted, a resolution on the provision of an educational subvention in 2024 was being prepared.

# Key findings and policy considerations

## 1. Institutional framework governing teacher professional development

### 1.1 Laws and regulations governing the activities of Teacher Training Institutes

The tasks, rights and responsibilities of Teacher Training Institutes (TTIs) are set out in the 'Regulation on Republican (Autonomous Republic of Crimea), Regional and Kyiv and Sevastopol City Institutes of Postgraduate Pedagogical Education' (henceforth referred to as '**the Regulation**') (MESU, 2000).<sup>7</sup> Since the last update in 2009, there have been numerous changes affecting the Ukrainian education system, including the introduction of the New Ukrainian School (NUS) reform, the digital transformation of education and changes directly and/or indirectly resulting from the outbreak of war. Given these challenges, it is important to consider revising the Regulation to align its contents with the needs of modern Ukrainian education, as well as to enhance the quality of postgraduate pedagogical education.

Furthermore, the Regulation states that Regional Institutes of Postgraduate Pedagogical Education (henceforth referred to as '**Regional Institutes**' and used synonymously to denote TTIs) are higher education institutions (HEIs) of level III-IV accreditation. However, the Ukrainian Law 'On Education'<sup>8</sup> that prevails over the Regulation does not define the Regional Institutes as HEIs by default (Verkhovna Rada, 2017). Some Regional Institutes have already obtained an HEI status (i.e. academies of continuing education) which contributes to broadening their list of educational services compared to other Regional Institutes that do not possess this status. Interviews with Regional Institute representatives indicate that the lack of HEI status means that staff cannot receive academic titles and are not entitled to the same salary conditions as the staff of HEIs, which has resulted in the outflow of staff in some cases. In light of this, it is important to consider harmonizing the legislation governing the HEI status of Regional Institutes.

The Draft Ukrainian Law 'On Adult Education' was adopted in the 1<sup>st</sup> reading in 2023 to regulate and systemize the adult education system, including TTIs' work (MESU, 2022b). However, in interviews, TTI representatives expressed concerns that the draft law does not sufficiently cover the necessary changes in their activities and that their views were not adequately considered during the public discussion of the draft law.

#### *Policy reforms to consider:*

- The Regulation should be updated further to align with the current educational priorities and challenges in Ukraine (i.e. the NUS reform, wartime educational needs, digitalization trends and more) as well as the Ukrainian Law 'On Education' on the status of Regional Institutes as HEIs.
- Review the draft law 'On Adult Education' and, where feasible, integrate suggestions from Regional Institute representatives. Major amendments that could be considered in the revised draft law 'On Adult Education' relate to recognizing Regional Institutes as providers of formal education – similar to HEIs – and, by extension, matching the staff salary scales to that of HEIs.

Another relevant resolution of the Cabinet of Ministers of Ukraine stipulates that a license to provide teacher professional development (TPD) requires a minimum capacity of 2.4 square meters per person for training (CMU, 2015). This resolution places, in some cases, excessive limitations on TTIs training capacity. There is an exemption to this capacity limitation when educational institutes are conducting professional development training either under the 'government order' in a distance modality or at the place of work of the trainees. However, this exemption on the minimum capacity of square meters per person is not included in the licensing requirements for HEIs – which applies to some TTIs (CMU, 2015). These licensing conditions rightly aim to limit the number of participants and ensure the quality of TPD provision. However, they have not been fully adapted to accommodate emerging modes of hybrid and online training formats and short-term courses. There is an increasing demand for TPD among teachers, especially in terms of training on the NUS reform. Consequently, adapting the licensing conditions could potentially support TTIs in fulfilling their responsibilities more effectively.

#### *Policy reform to consider:*

- Teacher training license volume limitations should be adapted to current TTI needs and learning modalities without compromising the quality of training and/or applicable sanitary and safety requirements. Changes should allow TTIs to carry out training over licensed volume capacities if it is short-term (e.g. seminars,

<sup>7</sup> Regulation on Republican (Autonomous Republic of Crimea), Regional and Kyiv and Sevastopol City Institutes of Postgraduate Pedagogical Education approved by the Order of the Ministry of Education and Science of Ukraine No. 538 dated 17.11.2000 (as amended).

<sup>8</sup> Ukrainian Law 'On Education' No. 2145-VIII dated 05.09.2017 (as amended).

workshops) or provided online.

### **1.2 Absence of external quality assurance mechanisms for teacher professional development delivery**

TTIs are accredited training providers conducting their activities as per Ukrainian education laws, regulations and professional standards. However, there is currently no mechanism in place to conduct regular external assessments of the quality of training provision and adherence of the Regional Institutes to legislated responsibilities. In the absence of external quality assurance mechanisms, TTIs instead conduct quality assurance internally. In particular, TTI representatives indicated that they might gather feedback from teachers engaged in TPD programmes/courses and subsequently use this feedback to inform the training.

The Institute of Education Content Modernization regularly collects certain data on TTI activities and provided teacher training services (Kliassen, 2022; 2023). These reports primarily contain general indicators about the quantity of pedagogical professionals who participated in TPD programmes/courses in TTIs. However, they do not include any elements on quality assessment of the courses that TTIs offer.<sup>9</sup> Consequently, the quality improvement of learning at TTIs depends on the institutions and their staff, with either no or limited external monitoring of the quality of their courses.

External quality assurance is an important mechanism to set minimum standards of education quality and encourage educational improvement (European Commission, 2018). However, external quality assurance can only be effective when there is a proper balance between accountability and improvement functions along with buy-in from those undergoing evaluation (ibid., 2018). If developed effectively and integrated well within the wider educational system, external quality assurance can foster a shared understanding of the evaluation's purposes, promote consistent self-reflection among pedagogical personnel and work in alignment with internal quality assurance to drive collective efforts in educational improvement (European Commission, 2018; UNESCO IIEP & AFU, 2018).

The State Service of Education Quality (SSEQ) and the Ukrainian Center for Educational Quality Assessment (UCEQA) monitor school education quality and could potentially extend their processes to include the quality assessment of TPD programmes and courses<sup>10</sup> or support the development of an external quality assurance system for TTIs. It may also prove beneficial to involve the National Agency for Higher Education Quality Assurance (NAQA) in related discussions.

#### ***Policy reform to consider:***

- Consider the development of external quality assurance mechanisms for TTIs and non-state providers in cooperation with the SSEQ, the UCEQA and/or the NAQA.

### **1.3 Overlapping responsibilities and authorities of the Institute of Education Content Modernization and the Ukrainian Institute of Education Development**

The Institute of Education Content Modernization and the Ukrainian Institute of Education Development are two key institutions involved in coordinating the provision of TPD in Ukraine.

The statute of the Institute of Education Content Modernization notes that its TPD-related tasks include the provision of scientific and methodological support to and arrangement of activities aimed at the professional development of teachers; coordination of scientific and teaching activities of TTIs, methodological services and methodological centers; and the provision of scientific and methodological support to educational projects, all-Ukrainian experiments on the basis of TTIs, arrangement of the professional development of teachers and management of educational facilities (IECM, 2023).

The Ukrainian Institute of Education Development was set up in 2019 to provide educational and methodological support to educational institutions and staff (UIED, 2024b). Before July 2024, they more often worked with Centres for Professional Development and other TPD providers, interacting less with TTIs than the Institute of Education Content Modernization. Among other responsibilities, under its statute, the Ukrainian Institute of Education Development develops professional standards and professional development programmes for teachers; coordinates activities of the network of TPD institutions; and supports innovative all-Ukrainian educational projects and experiments on the basis of TTIs (ibid., 2024).

Thus, the responsibilities and authorities of both Institutes overlap, resulting in a complex institutional TPD

<sup>9</sup> We understand that self-assessment of the quality of TTI activities was performed in February 2024 and summarized in the informational and analytical note of IECM (in accordance with MESU 2021a).

<sup>10</sup> Provided they are given the appropriate powers.

environment and generating potential system inefficiencies.

In July 2024, the Ministry of Education and Science of Ukraine (MESU) issued an order<sup>11</sup> (MESU, 2024b) designating the Ukrainian Institute of Education Development as the entity responsible for coordinating the activities of TTIs and overseeing the professional development of teachers and educational staff. This order indicates a shift in the role of the Ukrainian Institute of Education Development, transferring coordination responsibilities from the Institute of Education Content Modernization to the Ukrainian Institute of Education Development.

With this first step made, the overlap of responsibilities and authorities of these two institutes should be further eliminated.

**Policy reform to consider:**

- Consider and implement solutions to ultimately terminate the overlap of responsibilities and authorities of the Institute of Education Content Modernization and the Ukrainian Institute of Education Development.

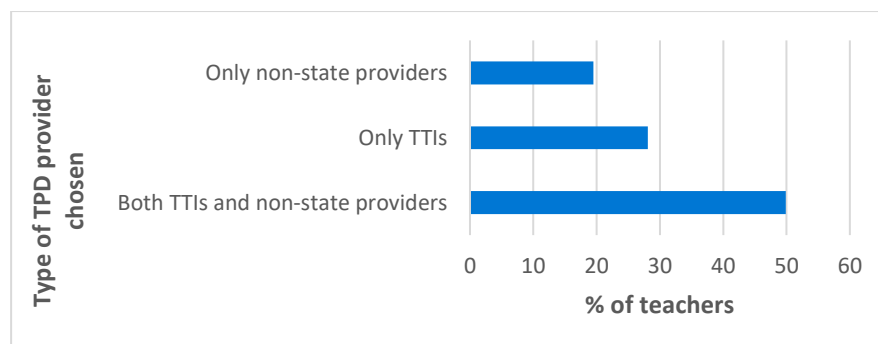
#### 1.4 Non-state teacher professional development providers

In 2017, the state regulation of TPD providers was cancelled following amendments to the Ukrainian Law 'On Education.' As a result, non-state providers were also granted access to the TPD market and could provide teacher training alongside TTIs (Verkhovna Rada, 2017). In other words, since 2017, any private business with a relevant registered business code pertaining to TPD services could be a TPD provider. However, unlike TTIs, they are not required to obtain a license to begin operating.

This is a continually growing sector with expanding market share, and non-state providers are popular with teachers. A 2023 survey<sup>12</sup> indicated that pedagogical professionals and directors often choose non-state TPD providers due to the variety of topics offered and more progressive teaching approaches (Denysiuk, 2023a). According to the same survey, 19.5% of pedagogical professionals and directors exclusively used private educational platforms for TPD and 49.9% used both private providers and TTIs (see **Figure 1**).

Non-state providers offer both free and paid courses and they provide a more straightforward application process for teachers. Participants can simply register and start a course with a non-state provider; whereas with a TTI course, they must apply and then await approval. Teacher training content is approved faster by non-state providers because, as compared to TTIs, it is not subject to a review by scientific councils or any other similar body. This could also result in inconsistencies between the content of TPD educational programmes and the requirements of state education policy, operational regulations and didactic standards for the educational process.

**Figure 1. Ukrainian teachers' choice of TPD providers in 2022 (n = 47,665)**



Source: Denysiuk, 2023a.

Additionally, TPD activities of TTIs are more limited and much more regulated compared to similar activities offered by non-state providers, resulting in discontent among TTI representatives (UNESCO, 2023b). Non-state TPD providers are only subject to minimal formal requirements and are not held to the same standards for material and technical

<sup>11</sup> Order of the MESU 'On coordination of the activities of the network of institutions providing postgraduate pedagogical education, centres of teacher professional development, other institutions of the education system and the invalidation of the Order of the Ministry of Education and Science of Ukraine of 22.01.2021 No. 97' No. 990 dated 12 July 2024.

<sup>12</sup> This on-line survey covering 5,440 directors of general secondary schools and 48,518 teachers of basic schools was conducted by MESU and IEA in May and June 2023 to evaluate the readiness of teaching staff to carry out the NUS reform.

resources, educational methodology and informational support as TTIs.

There is also a risk of forgery and sale of completion certificates from both non-state providers and TTIs. However, the risk appears to be greater for non-state providers due to the minimal regulation of their activities.

The introduction of minimum regulations or licensing requirements would ensure a more consistent standard and quality of services among non-state providers and TTIs.

***Policy reform to consider:***

- Introduce minimum regulations or licensing requirements in line with MESU standards to govern the activity of non-state teacher training providers.

## 2. Capacity analysis of Teacher Training Institutions

### ***2.1 Shortages of qualified staff***

The war in Ukraine has led to an outflow and lack of qualified staff in TTIs due to internal and international displacements and mobilization (UNESCO, 2023a; UNESCO, 2023b). During an interview conducted for this study, a TTI representative indicated that, as compared to the pedagogical professionals of many other categories, TTI staff are not entitled to an exemption from mobilization based on Article 23 of the Ukrainian Law 'On Mobilization Training and Mobilization'<sup>13</sup> (UNESCO, 2023b; Verkhovna Rada, 2023a).

The TTI Capacity Survey and TTI Digital Survey indicated a lack of staff in TTIs with technical skills to manage Learning Management System (LMS) platforms. Half of respondents (50%) of TTIs indicated in the UNESCO TTI Capacity Survey that they do not have staff with strong skills in LMS platform development (i.e. producing and uploading TPD course content). A lack of technical specialists for LMS platform development was also reported by TTIs in the Digital Survey (UNESCO, 2023a). Concerns about a lack of sufficiently skilled staff dedicated to LMS maintenance and support were also raised by TTIs in both surveys (UNESCO, 2023a). For example, in the TTI Capacity Survey, although 9 TTIs indicated that they have strong staff capacity in this area, 15 indicated limited or very limited capacities.

The shortage of technical staff may be due to several factors – with low salaries likely being a contributing factor. TTI representatives in the UNESCO consultation session indicated that staff receive low salaries and less social benefits, resulting in a loss of technically specialized staff to other jobs (UNESCO, 2023b). This is an important issue as both the 1966 ILO/UNESCO Recommendation concerning the Status of Teachers and the 1997 UNESCO Recommendation concerning the Status of Higher Education Teaching Personnel highlight that the salaries and social benefits provided to teachers and higher education staff should reflect the importance of these professions to society (ILO & UNESCO, 2016).

***Policy reform to consider:***

- Conduct further investigation into why TTIs lack technically skilled staff and consider appropriate solutions (e.g. improving the attractiveness of the roles through higher salaries and better social benefits; offering training on LMS platform development, maintenance and support; and expanding employment opportunities). When reviewing salaries and social benefits for technical staff, the 1966 ILO/UNESCO and 1997 UNESCO Recommendations should be considered to ensure fair compensation that reflects the importance of their role in building a skilled teacher workforce and a strong education system.

### ***2.2 Part-time engagement of pedagogical professionals***

Some of the teacher training courses in TTIs, including specialized subjects, are delivered by pedagogical professionals who are employed on a part-time basis.

In 2022, the Cabinet of Ministers of Ukraine cancelled its Resolution 'On the Part-Time Work of Employees of State-Owned Enterprises, Institutions and Organizations' No. 245 (CMU, 1993; 2022)<sup>14</sup> and a joint Order of the Ukrainian Ministry of Labor, Ministry of Justice and Ministry of Finance 'On Approval of the Regulation on the Conditions of Part-Time Work of Employees of State-Owned Enterprises, Institutions and Organizations' No. 43<sup>15</sup> that were governing certain aspects of part-time employment (MLU, MJU & MFU, 1993). In particular, the work of teaching

<sup>13</sup> Ukrainian Law 'On Mobilization Training and Mobilization' No. 3542-XII dated 21 October 1993 (as amended).

<sup>14</sup> Resolution 'On the Part-Time Work of Employees of State-Owned Enterprises, Institutions and Organizations' No. 245 dated 3 April 1993.

<sup>15</sup> Order of the Ukrainian Ministry of Labor, Ministry of Justice and Ministry of Finance 'On Approval of the Regulation on the Conditions of Part-Time Work of Employees of State-Owned Enterprises, Institutions and Organizations' No. 43 dated 28 June 1993.

that meets certain criteria was explicitly exempt from the ambit of part-time work.

Following the cancellation of these regulations, any teaching outside the main place of work is considered part-time. This means that teacher trainers can only perform such work in their free time (i.e., outside the time frame that is established as working hours at the main place of work). Based on the peculiarities of the educational process (e.g. class schedules), part-time teaching may therefore result in a pro-rata loss in wages at the main place of work if the working hours of a teacher trainer there are trimmed.

It therefore became more challenging or, in certain cases, impossible for TTIs to attract part-time pedagogical professionals, especially those needed for specialized subjects.

***Policy reform to consider:***

- Adapt a regulatory modality to facilitate the part-time employment of external specialized pedagogical professionals in TTIs without limitations on when work under such part-time employment could be performed.

### ***2.3 Teacher professional development for the staff of Teacher Training Institutions***

Pedagogical and scientific-pedagogical TTI professionals are required to complete a certain number of training hours.<sup>16</sup> The TTI Capacity Survey results suggested that out of a list of possible topics, TTI pedagogical and scientific-pedagogical professionals prioritized upgrading their skills in the following areas: competency-based integrated pedagogical approaches, digital and blended learning pedagogies and the application of these to the NUS reform. In addition, socio-emotional, resilience and conflict-sensitive education training were in the top five ranked training topics for TTI professionals.

Draft professional standards have already been developed for HEI teachers. Once these professional standards are approved, they should serve as a roadmap for the professional development of TTI trainers.

***Policy reforms to consider:***

- Prioritize training for pedagogical and scientific-pedagogical TTI professionals in the following areas:
  - Integrated competency-based pedagogical approaches as well as their application to the NUS reform;
  - Digital and blended pedagogical approaches and their application to the NUS reform;
  - Socio-emotional learning; and
  - Conflict- and trauma-sensitive learning approaches.
- Following approval of draft professional standards for HEI teachers, consider using them as a roadmap for the professional development of the TTI trainers.

### ***2.4 Teacher trainer networks and teacher communities of practice***

Various regional and national level professional communities and networks exist in Ukraine where pedagogical professionals can receive additional advice on a variety of pedagogical matters and share their best practices. In the TTI Capacity Survey, at least 83% of TTIs reported facilitating teacher networks,<sup>17</sup> which help pedagogical professionals apply the new knowledge and competencies following completion of the TPD courses. Also, 24 out of 25 TTIs are capable and ready to contribute to the support and development of teacher trainer networks and communities of practice.

A list of 1,798 TPD trainers that include TTI professionals, local educational department representatives as well as pre-school and primary school teachers was adopted by MESU to support the implementation of the NUS reform in grades 1-4 (MESU, 2019). Similar teams of trainers to support the NUS reform in secondary education have been established at both the TTI and regional levels (MESU, 2021a).

Although such teams of trainers are not communities of practice per se, they create a space for teachers to discuss

<sup>16</sup> There are two main categories of staff engaged in teaching courses in TTIs: pedagogical and scientific-pedagogical staff members. The professional development requirements are different for these staff members. Whereas pedagogical staff must complete 150 hours of professional development every five years, scientific-pedagogical staff must complete at least 180 hours (CMU, 2019a).

<sup>17</sup> Three TTIs commented that they do not facilitate teacher networks; one TTI did not provide any comment on this matter.

different aspects of implementation of the NUS reform at different levels, obtain additional professional advice and share their best practices. These teams typically operate informally, with coordinators maintaining communication and providing support through messaging and social networking platforms.

A survey of around 2,000 Ukrainian 3<sup>rd</sup> grade teachers administered by the MESU and the Institute of Educational Analytics (IEA)<sup>18</sup> showed that around 75% of teachers receive frequent or occasional support from methodological communities at the schools (Denysiuk, 2021a).

Although different professional networks and communities of practice for educational staff exist in Ukraine, there is a lack of available information to analyze their effectiveness. Research has shown that well-designed networks and communities of practice can positively impact teaching practice and student outcomes (Vescio et al., 2008; UNESCO & TTF, 2024; UNESCO IIEP, 2003). For example, the 2024 *Global Report on Teachers* highlighted how communities of practice improved teachers' "collaboration, feedback provision, job satisfaction and self-efficacy" (UNESCO & TTF, 2024, p.108). Evaluating their effectiveness within the Ukrainian context and refining their structure could enhance accessibility and usefulness, ultimately benefiting teachers and the entire education system.

Another key element in the development of professional networks and communities of practice is the network of supervisors. A new supervision procedure has been developed<sup>19</sup> (MESU, 2024a) and the regional networks of supervisors are now in place as TTIs had already started training supervisors since 2019-2020. The Ukrainian Institute of Education Development has created a standard programme for the professional development of teacher-supervisors<sup>20</sup> (UIED, 2024a) and related teaching materials, which can provide an opportunity for different TPD service providers to train supervisors, including those at TTIs.

#### ***Policy reforms to consider:***

- Conduct further investigation into the efficiency of teacher trainer networks and teacher communities of practice.
- Consider developing modules on organizing and supporting communities of practice in the professional development programmes for heads of general secondary education institutions, as well as developing short-term training programmes for leaders and/or moderators of communities of practice.
- Promote stronger cooperation between TTIs and the Centers for Professional Development (CPDs) that are supposed to coordinate the activities of communities of practice<sup>21</sup> to increase the effectiveness of the process of establishing, supporting and coordinating these communities in Ukraine.

### **3. Teacher professional development course content**

#### ***3.1 Review, amendment and development of courses in Teacher Training Institutions***

Each TTI offers a wide range of courses for different educational levels, subjects and specialties. Training programmes are developed and/or revised by TTIs annually, according to MESU priorities, regulatory and legal framework and content demands from teachers and local communities (Verkhovna Rada, 2023b; MESU, 2018; 2022a). TPD programme creation and/or revision are overseen by a TTI academic council.

To identify TPD needs, TTIs use surveys and/or focus groups of teachers and other relevant stakeholders. Moreover, schools in each region are provided with a proposed list of TPD courses and they indicate which are the most relevant to their needs. Engaging with schools and identifying the needs of schools and teachers aligns with international principles on the role of teacher education institutions. The 1966 UNESCO Recommendation concerning the Status of Teachers highlights the importance of reflecting 'the experience of schools and teachers [in their work]' (ILO & UNESCO, 2016, p.28).

TTI representative interviews also indicated that relevant modules and events may be added upon request throughout the year in addition to the annual TPD course programme. Given that TTIs are licensed TPD providers, participating teachers are issued with officially recognized certificates of completion following a completion of a TPD

<sup>18</sup> Conducted from May to June 2021, this survey by MESU and IEA aimed to monitor the implementation of the NUS reform. A total of 2,175 3<sup>rd</sup> grade teachers and 17,175 parents of 3<sup>rd</sup> grade students were included.

<sup>19</sup> Order of the MESU 'On Approval of the Procedure for Providing Professional Support and Assistance to Teachers (Supervision)' No. 855 dated 14 June 2024.

<sup>20</sup> 'Training of trainers programme for training supervisors in the field of general secondary education under the programme for training providers of professional support and assistance to pedagogical staff (supervision)', adopted by the Order of the UIED No. 131-ar dated 23 September 2024.

<sup>21</sup> Resolution of the CMU 'Certain Aspects of Professional Development of Pedagogical Workers' No. 672 dated 29 July 2020.

course.

### **3.2 Teacher professional development content in the context of priority areas in educational policy**

According to the TTI Capacity Survey, TTIs offer training courses on a wide range of topics, including innovative pedagogies for teaching the NUS curriculum. The courses are developed in line with the MESU digital transformation in education and science strategy and adapting teaching practice to war conditions. They are based on the standard TPD programmes approved by MESU and teacher professional standards (MESU, 2022a; MEU, 2020).

TPD courses on NUS implementation appear to be effective. According to monitoring surveys by MESU and IEA (Denysiuk, 2021b; 2023a), teachers' feelings of preparedness in various NUS areas have improved since 2021. The vast majority of teachers reported being 'fully' or 'rather' prepared in areas such as soft skills, critical thinking, class organization and competency-based approaches (Denysiuk, 2023a). In a MESU and IEA survey of 6<sup>th</sup> grade teachers,<sup>22</sup> the following TPD content topics were defined as the most relevant: modern pedagogical approaches in NUS, implementation of the NUS concept in basic secondary school, digital pedagogy and assessment of subject-based learning results in the context of NUS (Denysiuk, 2023b).

Crisis-sensitive education is particularly important considering the ongoing war in Ukraine – it has had a detrimental effect on the psychological well-being of both teachers and students (IEA et al., 2022). According to the TTI Capacity Survey, 22 out of 25 TTIs have courses (including short-term courses) related to crisis-sensitive education, providing methods and practices for teaching in war conditions and supporting children psychologically. These courses include modules/topics on the development of professional psychological competencies of pedagogical professionals.

Psychological support to secondary students has been integrated into legislation governing education in Ukraine. In April 2023, an amendment to the Ukrainian Law 'On Complete General Secondary Education'<sup>23</sup> mandated that 10% of the time allocated to TPD should be devoted to improving teacher knowledge and practical skills in providing students with psychological support<sup>24</sup> (Verkhovna Rada, 2023c).

General education facilities are also required to ensure inclusive education for students with special educational needs. Such requirements align with UNESCO's Salamanca Statement and Framework for Action on Special Needs Education to adopt "the principle of inclusive education, enrolling all children in regular schools" (UNESCO & MES of Spain, 1994). Under the Resolution of the Cabinet of Ministers of Ukraine No. 957,<sup>25</sup> teachers should be able to adapt to the individual characteristics of children with special needs in education (e.g. develop and implement individual learning plans) (CMU, 2021a). Considering this, teachers should have sufficient knowledge and skills in inclusive education. The 'Law on General Secondary Education' requires that at least 10% of TPD time for secondary school teachers be dedicated to building knowledge and practical skills in inclusive education (Verkhovna Rada, 2023c). Accordingly, TTIs offer courses on inclusive education to teachers, teaching assistants and Inclusive Resource Centre teachers and specialists. They also offer short-term courses as well as seminars and webinars on the topic.

Development of digital competencies in education is also a key element of the MESU strategy on the digital transformation of education and science. In 2021, a model TPD programme on digital competencies development was approved<sup>26</sup> (MESU, 2021b). TTIs use this model programme to create their own courses in this area. TPD courses on digital competencies are popular with teachers. Based on the results of the MESU and IEA survey of pilot NUS schools, 6<sup>th</sup> grade teachers deemed digital technologies in education as one of the most popular and relevant TPD topics for implementation of the NUS reform (Denysiuk, 2023b). Further attention is needed in teacher professional development to enhance leadership, foreign language, entrepreneurial, design and prognostic competencies, based on teachers' self-assessments of the quality of their professional development.

### **3.3 Potential for further improvements in teacher professional development content**

The results of the MESU and IEA monitoring survey show that, although many teachers have completed numerous

<sup>22</sup> Conducted by MESU and IEA in June 2023 to monitor the implementation of the NUS reform in pilot schools, this survey was administered to 150 NUS coordinators, 131 general secondary principals, 1,097 6<sup>th</sup> grade teachers and 1,630 parents of 6<sup>th</sup> grade students.

<sup>23</sup> Ukrainian Law 'On Complete General Secondary Education' No. 463-IX dated 16 January 2020 (as amended).

<sup>24</sup> Ukrainian Law 'On Amending Article 51 of the Ukrainian Law "On Complete General Secondary Education"' No. 3015-IX dated 11 April 2023 amended Article 51 of Ukrainian Law 'On Complete General Secondary Education' No. 463-IX dated 16 January 2020.

<sup>25</sup> Resolution of CMU 'On Approval of the Order of Arrangement of Inclusive Learning in Secondary Education Facilities' No. 957 dated 15 September 2021 (as amended).

<sup>26</sup> Order of MESU "On Approval of a Standard Programme for Teacher Professional Development of Pedagogical Workers on Development of Digital Competency" No. 1340 dated 10 December 2021.

TPD courses focused on NUS, a percentage of teachers (24.5-52.2%) still reported feeling ‘rather prepared’ and not ‘fully prepared’ to teach based on the competency approach, class organization principles and integration and development of critical thinking approaches (Denysiuk, 2023a). This indicates that there is still room for improvement in fully equipping teachers with relevant NUS knowledge and practical skills. It is essential to maintain a strong focus on ensuring the availability of high-quality NUS courses for teachers. Specifically, more courses on digital competencies and blended learning methodologies are needed, along with guidance on applying these practices within the context of the NUS reform.

Despite the existing TPD courses on crisis-sensitive education, teachers have requested further courses on this matter. A survey of *hromadas* (administrative divisions in Ukraine) conducted by MESU and IEA<sup>27</sup> revealed that the most in-demand TPD courses for teachers were those focused on the provision of rapid psychosocial support, trauma-informed teaching and conflict-sensitive education (IEA et al., 2022). Similar findings emerged for inclusive education. Although TPD courses exist on this topic, the same survey of *hromadas* found that 60% of teachers thought there was a need for more courses in inclusive education (IEA et al., 2022).

***Policy reforms to consider:***

- Maintain a strong focus on ensuring the availability of high-quality NUS courses for teachers, including the development of leadership, foreign language, entrepreneurial, design, prognostic and digital competencies and blended learning methods, as well as the application of these approaches and methods in the context of the NUS reform.
- Given that many educational institutions in Ukraine are operating in distance or hybrid modes during the war, it is advisable for TPD courses offered by TTIs to include dedicated modules on teaching methodologies for specific subjects in these formats. The courses should also cover organizing the educational process in uncertain conditions (e.g. using the universal design for learning approach) and providing psychological support during remote interactions.
- Consider additional improvement and/or development of TTI course content on crisis-sensitive and inclusive education. Conduct further research into the specific needs of teachers in these domains to ensure that improvements are meaningful and address their demands effectively.

### **3.4 Gaps in the course content of Teacher Training Institutions**

Certain topics require additional course content to be offered by TTIs (detailed below). TTIs either do not offer TPD courses on these topics or their proposals are limited, creating gaps in the state education provision. However, TPD courses on these topics are offered by non-state providers (often for a fee).

#### **NUS for grades 7-9**

There is a lack of TTI courses for teachers in the 2<sup>nd</sup> cycle of basic secondary education (grades 7-9),<sup>28</sup> which significantly hinders the effective implementation of the NUS reform. Moreover, there is a lack of TPD courses on the NUS reform for teachers of certain subjects (physics, chemistry, mathematics, history, natural sciences with integrated approaches, etc.) who were not previously involved in the implementation of the State Standard of Basic Secondary Education. As a result, these teachers are not able to meet the TPD requirements in this area. While teacher training for grades 5-6 under NUS was completed in 2023, the next challenge is to ensure the training of teachers in the 2nd cycle of basic education (grades 7–9) under the NUS reform.

#### **Application of AI in education**

AI presents both opportunities and risks to teaching and learning. Developing teachers into ethical and effective users of AI is an important consideration when planning TPD programmes as teachers will be the ones designing and managing students’ AI learning experiences and mitigating risks associated with the technology (UNESCO, 2024). However, most Ukrainian TTIs do not offer training courses on this topic. TTI trainers lack the necessary knowledge to teach this content and would require further training. Courses on the application of AI in education are offered by other (non-state) organizations – for example, the NGO EdEra and the Umity platform (EdEra, 2023; Umity, 2023). However, these are both paid options and teachers do not have a free, state-funded alternative if they want to

<sup>27</sup> A nationwide survey of *hromadas* was conducted in May and June 2022 by MESU, IEA and the Ukraine Education Cluster. A total of 1,045 out of 1,451 *hromadas* (79%) responded to the survey. A limited proportion of *hromadas* responded in Luhanska, Mykolaivska and Zaporizka oblasts (< 50%).

<sup>28</sup> However, some publishing houses offer teacher training on NUS for grades 7-9 for a fee. For example, Osvita publishing house offers an online course on NUS implementation in the 7th-9th grade (Osvita, 2023).

develop skills and receive a certificate to apply AI in education.

### Overcoming education losses

Numerous tools and courses are offered by several NGOs on overcoming educational losses. However, most TTIs do not have dedicated courses for teachers on this topic.

Diagnostic tests for teachers and students developed by the NGOs SURGe and Teach4Ukraine are available on the platforms All-Ukrainian School Online and Educational SUP, respectively (Teach4Ukraine, 2023; MESU, 2023a). As noted, however, TTIs do not offer separate courses on overcoming educational losses.<sup>29</sup>

### Safety skills

Integrating general safety skills, such as mine safety and first aid, into TPD courses is crucial given the ongoing war and the persistent threat of mines and unexploded ordnances in Ukraine. These skills are particularly vital, as approximately 30% of Ukrainian territory remains potentially hazardous due to mines (MESU, 2023b).

In 2023, UNICEF trained more than 5,000 teachers, social workers and civil servants on mine safety for children (MESU, 2023b). However, regular and mandatory general safety skills are not built into TPD programmes in TTIs. Some programmes, however, have integrated very short first aid training. A teacher survey results supported this need – 43% of respondents requested pre-medical first aid courses and 39% requested explosive ordnance risk education (EORE) courses (IEA et al., 2022). Additional courses, seminars and workshops could contribute to the improvement of teachers' knowledge and skills, thereby potentially enhancing the safety of both teachers and students.

#### *Policy reform to consider:*

- Based on the identified gaps, develop TPD courses for TTIs and train teacher trainers accordingly on: NUS reform for grades 7-9, the application of AI in education, overcoming education losses and safety skills.

## 4. Infrastructure needs in Teacher Training Institutions

Courses at TTIs are generally provided using face-to-face, distance or hybrid formats. However, due to the ongoing war in Ukraine and wartime security requirements, almost all TTIs use distance and hybrid formats. Some TTI trainers also travel to schools to provide in-person training on their premises. Institutes located in areas with hostilities (e.g. Kherson, Zaporizhzhia and Mykolaiv TTIs) provide exclusively distance teaching due to safety concerns. A few TTIs (e.g. Donetsk and Luhansk TTIs) relocated to safe territories and their staff work remotely from different areas in Ukraine or from abroad.

The TTI Capacity Survey and TTI Digital Survey responses show that the vast majority of TTIs have the general infrastructural capacity to provide teacher training in face-to-face and online formats. However, their digital equipment can often be old and outdated.

Recently, a few projects in partnership with international businesses supplied digital equipment to TTIs.<sup>30</sup> Despite this, TTI representatives indicated that basic schools are prioritized during digital equipment provision, meaning that TTIs often do not receive sufficient numbers of tablets and other equipment, limiting their ability to integrate this equipment's use in teacher training (UNESCO, 2023b).

Before 2022, TTIs were using the subvention on NUS implementation to update their digital infrastructure. However, following the outbreak of the war, this funding was re-allocated to finance defence efforts (CMU, 2021b).

In some cases, the availability and quality of digital equipment appear to be insufficient. In the TTI Digital Survey, 7 out of 12 TTIs rated their equipment availability and quality as 'average', 'poor' and 'very poor' (UNESCO, 2023a). As only 12 TTIs responded to the Digital Survey, it is likely that more TTIs may share similar concerns.

Another common problem encountered by TTIs is power outages which damage switches and routers, limiting Internet speed or making them unusable. The frequency of such outages depends on the region, the time of year and the extent of damage to energy infrastructure caused by attacks.

#### *Policy reforms to consider:*

<sup>29</sup> Nevertheless, in 2023, UIED in cooperation with SSEQ trained CPD professionals on the application of diagnostics tests, and, in 2024, on-line training on this topic is foreseen to be developed and available to TTIs.

<sup>30</sup> Two TTIs were given 70 laptops by the Olena Zelenska Foundation as part of the initiative 'Digital Equity for Ukraine' and four TTIs received laptops as part of a MESU and Google project, as indicated in interviews with TTI representatives.

- Ensure a consistent supply of updated digital equipment to TTIs, prioritizing equipment comparable to what schools receive. This approach facilitates the seamless integration of relevant technology into teacher training.
- Support the technical maintenance of TTI digital infrastructure.

According to the TTI Capacity Survey, 24 out of 25 TTIs have access to and use LMS platforms in their TPD activities. As many as 20 TTIs use Moodle, three use their own platforms and one uses the platform Klasna Otsinka.

TTI representatives indicated that they do not have the laboratories needed to train teachers in specific subjects (e.g. natural sciences). To continue teaching, TTIs borrow equipment or conduct training events in schools. While these may be viable solutions in some cases, a more sustainable long-term approach would be to secure funding, enabling TTIs to acquire and maintain their own equipment.

***Policy reform to consider:***

- Secure funding to provide laboratory and other subject-specific equipment (e.g. natural sciences) to TTIs.

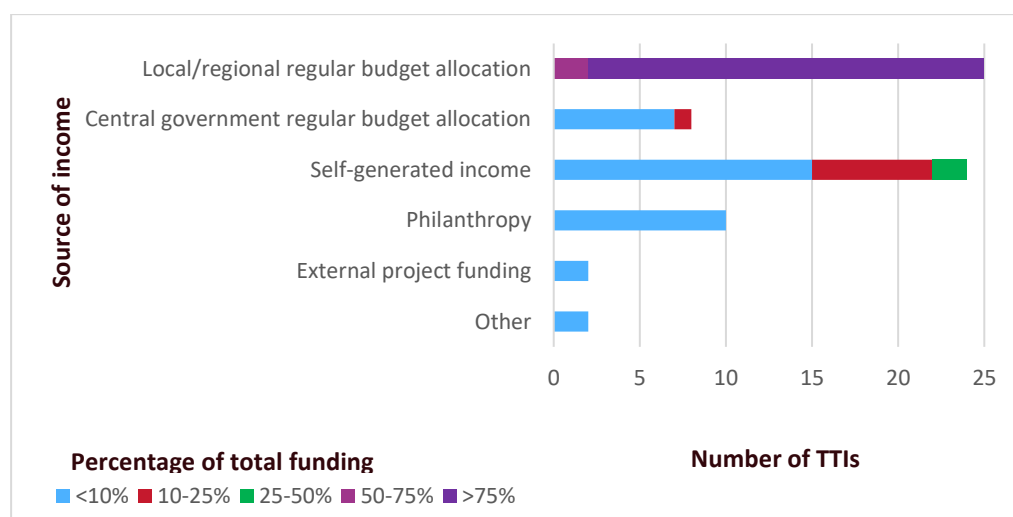
## 5. Funding sources of Teacher Training Institutions

The majority of TTI funding comes from the state and local administrative budgets. This is administered to TTIs each year based on the number of trainees (MESU, 2010). According to the TTI Capacity Survey, local budgets are the main source of their financing, providing at least 75% of funds for the vast majority of TTIs (see **Figure 2**). Other sources of funding come from the central government, self-generated income, external donors and charitable donations, although these generally constitute a minority of total funding.

Shares of these financing sources could significantly differ for each TTI. For example, two TTIs indicated that 25-50% of their funding is self-generated compared to less than 10% for most other TTIs. Funding disparities were not flagged as an issue in interviews with TTI representatives.

Subventions from the state and funding from local budgets are the most stable source of TTI funding. Their equitable, consistent allocation to TTIs should be prioritized to facilitate high-quality teacher professional development provision. However, given the constraints imposed by the ongoing war on educational funding, external funding sources could be explored as viable and temporary solutions to supplement state funding.

**Figure 2. Sources of TTI funding**



Source: TTIs Capacity Survey conducted by UNESCO.

In 2018, TTIs received state subvention to equip teachers with the necessary skills for the NUS reform, with the funding amount based on the number of teachers requiring training (CMU, 2018). This subvention was approved every year up to the beginning of the war in Ukraine (CMU, 2019c; 2020b; 2021b). However, the Ukrainian government later reduced education funding, reallocating the dedicated budget for NUS-related teacher professional development to defence needs. As of December 2023, funding for the NUS reform implementation has resumed.

***Policy reform to consider:***

- Ensure regular state educational subventions for TPD to support the implementation of the NUS reform.

Resolutions of the Cabinet of Ministers of Ukraine approve allocation of subventions from the state budget to the local budget for the purposes of developing safe learning conditions in educational facilities. In particular, these subventions will be used to finance the construction of shelters in educational facilities. However, TTIs are not included in this funding subvention for shelters (UNESCO, 2023b; CMU, 2023).

One of the key requirements for educational facilities to provide teaching in a face-to-face modality during the war is the availability of a properly equipped shelter. In the absence of state financing, it is challenging for TTIs to fulfil this requirement and provide face-to-face teaching (UNESCO, 2023b).

***Policy reform to consider:***

- Include TTIs in the funding subvention for shelters, especially for those in regions where face-to-face teaching may be possible.

Based on the results of the TTI Capacity Survey, 14 TTIs have a regularly allocated budget for an LMS, while 10 TTIs do not have a budget for this purpose. It is difficult to fully discern from this self-reporting whether finances are sufficient or not. However, survey responses certainly suggest that additional funding dedicated to LMS platforms would be beneficial for TTIs, especially for those that have no funds allocated to their maintenance and support.

***Policy reform to consider:***

- Explore full or partial funding options to host and maintain LMS platforms to support distance and hybrid teacher training in TTIs.

## 6. Conclusion

Amid the ongoing war in Ukraine, policy changes are needed to help foster an adaptive and high-quality professional development environment for Ukrainian teachers. This policy paper highlights key challenges faced by TTIs and proposes recommendations to enhance their operational efficiency, educational quality and adaptability to Ukraine's changing educational needs. The paper also provides other insights into the TPD market in Ukraine and existing teacher training needs. Considering the policy recommendations made in this paper could help TTIs better meet the professional development needs of educators, build resilience, support the mental health and well-being of teachers as well as boost the effectiveness of Ukraine's education system.

## References

- Cabinet of Ministers of Ukraine (CMU). (1993). Про роботу за сумісництвом працівників державних підприємств, установ і організацій [About part-time work of employees of state enterprises, institutions and organizations]. 3 April 1993, No 245.
- Cabinet of Ministers of Ukraine (CMU). (2015). Про затвердження Ліцензійних умов провадження освітньої діяльності [On the approval of the licensing conditions for conducting educational activities]. 30 December 2015, No. 1187.
- Cabinet of Ministers of Ukraine (CMU). (2016). Про схвалення Концепції реалізації державної політики у сфері реформування загальної середньої освіти 'Нова українська школа' на період до 2029 року [On the approval of the Concept of State Policy Implementation in the Reform of General Secondary Education 'New Ukrainian School' for the period until 2029]. 14 December 2016, No. 988.
- Cabinet of Ministers of Ukraine (CMU). (2018). Деякі питання надання субвенції з державного бюджету місцевим бюджетам на забезпечення якісної, сучасної та доступної загальної середньої освіти 'Нова українська школа' [Some issues of providing subventions from the state budget to local budgets to ensure high-quality, modern and affordable general secondary education 'New Ukrainian School']. 4 April 2018, No. 237.
- Cabinet of Ministers of Ukraine (CMU). (2019a). Про внесення змін до Державного стандарту початкової освіти [On making changes to the State Standard of Primary Education]. 24 July 2019, No. 688.
- Cabinet of Ministers of Ukraine (CMU). (2019b). Деякі питання підвищення кваліфікації педагогічних і науково-педагогічних працівників [Some issues of improving the qualifications of pedagogical and scientific-pedagogical staff]. 21 August 2019, No. 800.
- Cabinet of Ministers of Ukraine (CMU). (2019c). Деякі питання надання субвенції з державного бюджету місцевим бюджетам на забезпечення якісної, сучасної та доступної загальної середньої освіти 'Нова українська школа' у 2019 році [Some issues of providing subventions from the state budget to local budgets for the provision of high-quality, modern and affordable general education 'New Ukrainian School' in 2019]. 27 February 2019, No. 130.
- Cabinet of Ministers of Ukraine (CMU). (2020a). Про схвалення Стратегії цифрової трансформації соціальної сфери [On the approval of the Strategy of digital transformation of the social sphere]. 28 October 2020, No. 1353-r.
- Cabinet of Ministers of Ukraine (CMU). (2020b). Деякі питання надання субвенції з державного бюджету місцевим бюджетам на забезпечення якісної, сучасної та доступної загальної середньої освіти 'Нова українська школа' у 2020 році [Some issues of providing subventions from the state budget to local budgets for the provision of high-quality, modern and affordable general education 'New Ukrainian School' in 2020]. 12 February 2020, No. 105.
- Cabinet of Ministers of Ukraine (CMU). (2021a). Про затвердження Порядку організації інклюзивного навчання у закладах загальної середньої освіти [On the approval of the Procedure for the organization of inclusive education in institutions of general secondary education]. 15 September 2021, No. 957.
- Cabinet of Ministers of Ukraine (CMU). (2021b). Деякі питання надання субвенції з державного бюджету місцевим бюджетам на забезпечення якісної, сучасної та доступної загальної середньої освіти 'Нова українська школа' у 2021 році [Some issues of providing subventions from the state budget to local budgets for the provision of high-quality, modern and affordable general education 'New Ukrainian School' in 2021]. 17 May 2021, No. 476.
- Cabinet of Ministers of Ukraine (CMU). (2022). Про визнання такими, що втратили чинність, деяких постанов Кабінету Міністрів України з питань роботи за сумісництвом працівників державних підприємств, установ і організацій [On recognition as invalid of certain resolutions of the Cabinet of Ministers of Ukraine on part-time work of employees of state enterprises, institutions and organizations]. 22 November 2022, No. 1306.
- Cabinet of Ministers of Ukraine (CMU). (2023). Деякі питання надання субвенції з державного бюджету місцевим бюджетам на облаштування безпечних умов у закладах загальної середньої освіти [Some issues of providing subventions from the state budget to local budgets for the provision of safe conditions in general secondary education institutions]. 28 April 2023, No. 419.
- Denysiuk, O.Y. (2021a). Загальнодержавне моніторингове дослідження впровадження реформи НУШ. Інформаційно-аналітичні матеріали [Information and analytical materials 'Nationwide monitoring study of the implementation of the NUS reform']. Kyiv, Ukraine: Institute of Educational Analytics (IEA). Available at:

<https://iea.gov.ua/en/main-activities/scientific-and-analytics-activities/analytics/results-of-monitoring-studies/2021-2/> (Accessed 7 December, 2023).

Denysiuk, O.Y. (2021b). *Дослідження щодо готовності педагогічних працівників до реалізації Концепції Нової української школи [Research on teachers' readiness to implement the New Ukrainian School]*. Kyiv, Ukraine: Institute of Educational Analytics (IEA). Available at: <https://iea.gov.ua/en/main-activities/scientific-and-analytics-activities/analytics/results-of-monitoring-studies/2021-2/> (Accessed 7 December, 2023).

Denysiuk, O.Y. (2023a). *Моніторингове дослідження щодо готовності педагогічних працівників до реалізації Нової української школи [Monitoring study on the readiness of teaching staff to implement the NUS]*. Kyiv, Ukraine: Institute of Educational Analytics (IEA). Available at: <https://iea.gov.ua/en/main-activities/scientific-and-analytics-activities/analytics/results-of-monitoring-studies/2023-2/> (Accessed 7 December, 2023).

Denysiuk, O.Y. (2023b). *Дослідження щодо впровадження реформи НУШ у пілотних закладах освіти (базова школа) [Monitoring study on the implementation of the NUS in pilot schools (basic schools)]*. Kyiv, Ukraine: Institute of Educational Analytics (IEA). Available at: <https://iea.gov.ua/en/main-activities/scientific-and-analytics-activities/analytics/results-of-monitoring-studies/2023-2/> (Accessed 7 December, 2023).

EdEra. (2023). EdEra Course Catalog. Available at: <https://ed-era.com/courses/> (Accessed 7 December, 2023).

European Commission. (2018). *Quality assurance for school development*. Available at: [https://education.ec.europa.eu/sites/default/files/document-library-docs/2018-wgs2-quality-assurance-school\\_en.pdf](https://education.ec.europa.eu/sites/default/files/document-library-docs/2018-wgs2-quality-assurance-school_en.pdf) (Accessed 09 January 2024).

Institute of Educational Analytics (IEA), Ministry of Education and Science of Ukraine (MESU) & Ukraine Education Cluster. (2022). *Final report Ukraine Education Needs Assessment Survey* Available at: <https://iea.gov.ua/en/main-activities/scientific-and-analytics-activities/analytics/results-of-monitoring-studies/2022-2/> (Accessed 7 December, 2023).

Institute of Education Content Modernization (IECM). (2023). *State Scientific Institution 'Institute of Education Content Modernization' Statute*. Available at: <https://en.imzo.gov.ua/statute/> (Accessed 10 January, 2024).

International Labour Organization (ILO) & UNESCO. (2016). *The ILO/UNESCO Recommendation concerning the Status of Teachers (1966) and the UNESCO Recommendation concerning the Status of Higher-Education Teaching Personnel (1997) – Revised edition 2016*. Geneva: International Labour Office, Sectoral Policies Department. Available at: [https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed\\_dialogue/@sector/documents/normativeinstrument/wcms\\_493315.pdf](https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_dialogue/@sector/documents/normativeinstrument/wcms_493315.pdf) (Accessed 26 September, 2024).

Kliassen, N.L. (2022). *Реалізація концепції «Нова українська школа» у регіональних закладах післядипломної педагогічної освіти за 2020–2021 роки [Implementation of the 'New Ukrainian School' Concept in regional post-graduate pedagogical education institutions for 2020–2021]*. Kyiv, Ukraine: Institute of Education Content Modernization (IECM). Available at: <https://mon.gov.ua/storage/app/media/zagalna%20serednya/serpneva-konferencia/2022/Lokatsiyi/Navch.ped.elity/Materialy.lokatsiyi-Navch.ped.elity/Prezentatsiya-Realizatsiya.kontseptsiyi-NUSH-u-rehionalnykh.zakladakh.pislyadyplomnoyi.pedahohichnoyi.osvity.za.2020-2021.roky.pdf> (Accessed 18 December, 2023).

Kliassen, N.L. (2023). *Каталог показників навчальної та науково-методичної діяльності закладів післядипломної педагогічної освіти з питань підготовки вчителів 5-6 класів закладів загальної середньої освіти [Catalogue of educational and scientific-methodological activities of regional institutions of post-graduate pedagogical education on training of teachers of grades 5-6 of general secondary education institutions]*. Kyiv, Ukraine: Institute of Education Content Modernization (IECM).

Ministry of Economy of Ukraine (MEU). (2020). Про затвердження професійного стандарту за професіями 'Вчитель початкових класів закладу загальної середньої освіти,' 'Вчитель закладу загальної середньої освіти,' 'Вчитель з початкової освіти (з дипломом молодшого спеціаліста)' [On the approval of the professional standard for the professions 'Teacher of primary classes of general public schools,' 'Teacher of general secondary education,' 'Teacher of primary education (with a diploma of junior specialist)']. 23 December 2020, No. 2736-20.

Ministry of Education and Science of Ukraine (MESU). (2000). Про затвердження Положення про республіканський (Автономної Республіки Крим), обласні та Київський і Севастопольський міські інститути післядипломної педагогічної освіти [On the approval of the Regulation on the republican (Autonomous Republic of Crimea), regional and Kyiv and Sevastopol city institutes of postgraduate pedagogical education]. 17 November 2000, No. 538.

Ministry of Education and Science of Ukraine (MESU). (2010). *Country Report Ukraine*. Kyiv: Council of Europe. Available at: <https://rm.coe.int/language-education-policy-profile-ukraine-country-report/16807b3b4b> (Accessed 8 December, 2023).

Ministry of Education and Science of Ukraine (MESU). (2016). *The New Ukrainian School*. Available at: <https://mon.gov.ua/storage/app/media/zagalna%20serednya/Book-ENG.pdf> (Accessed 7 December, 2023).

Ministry of Education and Science of Ukraine (MESU). (2018). Про затвердження Типової освітньої програми організації і проведення підвищення кваліфікації педагогічних працівників закладами післядипломної педагогічної освіти [On the approval of the standard educational programme of the organization and the improvement of the qualifications of pedagogical workers by institutions of postgraduate pedagogical education]. 15 January 2018, No.36.

Ministry of Education and Science of Ukraine (MESU). (2019). Про затвердження списку тренерів-педагогів для підвищення кваліфікації вчителів, які забезпечують здобуття учнями 1-4 класів початкової освіти відповідно до концепції 'Нова українська школа' [On approval of the list of teacher-trainers to improve the qualifications of teachers who ensure that students acquire grades 1-4 of primary education in accordance with the Concept 'New Ukrainian School']. 25 June 2019, No. 890.

Ministry of Education and Science of Ukraine (MESU). (2021a). Про реалізацію інноваційного освітнього проєкту всеукраїнського рівня за темою 'Розроблення і впровадження навчально-методичного забезпечення для закладів загальної середньої освіти в умовах реалізації Державного стандарту базової середньої освіти' [On the implementation of an innovative educational project at the all-Ukrainian level on the topic 'Development and implementation of educational and methodological support for institutions of general secondary education in the conditions of the implementation of the State Standard of Basic Secondary Education']. 02 April 2021, No. 406.

Ministry of Education and Science of Ukraine (MESU). (2021b). Про затвердження Типової програми підвищення кваліфікації педагогічних працівників з розвитку цифрової компетентності [On the approval of the Model Programme for the improvement of the qualifications of pedagogical workers for the development of digital competence]. 10 December 2021, No. 1340.

Ministry of Education and Science of Ukraine (MESU). (2022a). Про затвердження Типової програми підвищення кваліфікації вчителів закладів загальної середньої освіти, які впроваджують новий державний стандарт базової середньої освіти [On the approval of the standard training programme for teachers of general secondary education institutions implementing the new State Standard of Basic Secondary Education]. 12 October 2022, No. 904.

Ministry of Education and Science of Ukraine (MESU). (2022b). Проєкт Закону про освіту дорослих [Draft Law on Adult Education]. 10 February 2022, No. 7039.

Ministry of Education and Science of Ukraine (MESU). (2023a). *All-Ukrainian school online*. Available at: <https://lms.e-school.net.ua/> (Accessed 7 December, 2023).

Ministry of Education and Science of Ukraine (MESU). (2023b). Мінна безпека стане обов'язковим доповненням до шкільного курсу 'Здоров'я, безпека та добробут' [Mine Safety Will Become a Compulsory Addition to the Health, Safety and Welfare School Course]. Available at: <https://mon.gov.ua/news/minna-bezpeka-stane-obovyazkovim-dopovnenniam-do-shkilnogo-kursu-zdorovya-bezpeka-ta-dobrobut> (Accessed 7 December, 2023).

Ministry of Education and Science of Ukraine (MESU). (2024a). Про затвердження Порядку надання професійної підтримки та допомоги педагогічним працівникам (здійснення супервізії) [On approval of the procedure to provide professional support and assistance to teachers (supervision)]. 14 June 2024, No. 855. <https://zakon.rada.gov.ua/laws/show/z1201-24#Text>.

Ministry of Education and Science of Ukraine (MESU). (2024b). Про координацію діяльності мережі інституцій, що здійснюють післядипломну педагогічну освіту, центрів професійного розвитку педагогічних працівників, інших установ системи освіти та визнання таким, що втратив чинність, наказу Міністерства освіти і науки України від 22.01.2021 № 97 [On coordination of the activities of the network of institutions providing postgraduate pedagogical education, centres of teacher professional development, other institutions of the education system and the invalidation of the Order of Ministry of Education and Science of Ukraine of 22.01.2021 No. 97]. 12 July 2024, No. 990. [https://uied.org.ua/wp-content/uploads/2024/08/nakaz-vid-12\\_07\\_2024-%E2%84%96-990-koordynacziya-oippo.pdf](https://uied.org.ua/wp-content/uploads/2024/08/nakaz-vid-12_07_2024-%E2%84%96-990-koordynacziya-oippo.pdf)

Ministry of Education and Science of Ukraine (MESU). (2024c). *ПІСЛЯДИПЛОМНА ПЕДАГОГІЧНА ОСВІТА [Postgraduate Teaching Education]*. Available at: <https://mon.gov.ua/ministerstvo-2/gromadskosti/korisni-resursi/pislyadiplomna-pedagogichna-osvita> (Accessed 11 January, 2024).

Osvita. (2023). НУШ (7-9) [NUSH (7-9)]. Available at: <http://teachnew.yakistosviti.com.ua/?redirect=0> Accessed 7 December, 2023).

Safonov, Y., Usyk, V., & Bazhenkov, I. (2022). Digital Transformations of Education Policy. *Baltic Journal of Economic Studies*, 8 (2), 127-136. <https://doi.org/10.30525/2256-0742/2022-8-2-127-136>

Sofiy, N. (2017). Ukraine – ECEC Workforce Profile. In *Workforce Profiles in Systems of Early Childhood Education and Care in Europe*. Edited by P. Oberhuemer and I. Schreyer. Available at: [https://www.earlychildhoodworkforce.org/sites/default/files/2022-05/UKRAINE\\_ECEC\\_Workforce.pdf](https://www.earlychildhoodworkforce.org/sites/default/files/2022-05/UKRAINE_ECEC_Workforce.pdf) (Accessed 8 December, 2023).

Teach4Ukraine. (2023). ОСВІТНІЙ СУП [Educational Support]. Available at: <https://teachforukraine.org/osvitnij-sup/> (Accessed 7 December, 2023).

Ukrainian Institute of Education Development (UIED). (2024a). Програма з підготовки тренерів для навчання супервізорів у сфері загальної середньої освіти за програмою підготовки надавачів послуг з професійної підтримки та допомоги педагогічним працівникам (здійснення супервізії) [Training of trainers programme for training supervisors in the field of general secondary education under the programme for training providers of professional support and assistance to pedagogical staff (supervision)]. 23 September 2024, No. 131-ar. [https://uied.org.ua/wp-content/uploads/2024/09/programa\\_superviziya\\_uiro\\_2024.pdf](https://uied.org.ua/wp-content/uploads/2024/09/programa_superviziya_uiro_2024.pdf)

Ukrainian Institute of Education Development (UIED). (2024b). *About the Institute*. Available at: <https://uied.org.ua/en/about/> (Accessed 10, January 2024).

Umity. (2023). КУРСИ [Courses]. Available at: <https://umity.in.ua/courses/> (Accessed 7 December, 2023).

UNESCO. (2023a). Summary Report: Online Survey of the Ukrainian Teacher Training Institutions' Digital Infrastructure. Unpublished.

UNESCO. (2023b). Summary Report: Consultation Session with Teacher Training Institutions. Unpublished.

UNESCO. (2024). *AI competency framework for teachers*. Paris: UNESCO. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000391104> (Accessed 27 September, 2024).

UNESCO & International Task Force on Teachers for Education 2030 (TTF). (2024). *Global Report on Teachers: Addressing teacher shortages and transforming the profession*. Paris: UNESCO.

UNESCO & Ministry of Education and Science (MES) of Spain. (1994). *The Salamanca Statement and Framework for Action on Special Needs Education*. Salamanca, Spain. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000098427> (Accessed 27 September, 2024).

UNESCO IIEP. (2003). *Teacher professional development: an international review of the literature*. Paris: UNESCO. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000133010> (Accessed 27 September, 2024).

UNESCO IIEP & AFU. (2018). Linking external and internal quality assurance. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000263247?posinSet=7&queryId=5b2772cc-dc60-4cc0-b916-51d25d9f80a4> (Accessed 08 December 2023).

Verkhovna Rada. (2017). ЗАКОН УКРАЇНИ: Про освіту [Ukrainian Law: About education]. 9 May 2017, No. 2145-VIII.

Verkhovna Rada. (2023a). ЗАКОН УКРАЇНИ: Про мобілізаційну підготовку та мобілізацію [The Ukrainian Law: About mobilization training and mobilization]. No. 3543-XII, Article 23.

Verkhovna Rada. (2023b). Оперативний план Міністерства освіти і науки України на 2023 рік, затверджений Наказом Міністерства освіти і науки України від 10.01.2023 р. №15 [Operating Plan of the Ministry of Education and Science of Ukraine in 2023 adopted by the Order of Ministry of Education and Science of Ukraine No.15 dated 10.01.2023]. <https://mon.gov.ua/storage/app/media/rizne/Plany.roboty/2023/10.01.2023/Operativn.plan.MON.2023.pdf>.

Verkhovna Rada. (2023c). ЗАКОН УКРАЇНИ: Про повну загальну середню освіту [Ukrainian Law: About complete general secondary education]. No. 463-IX, Article 51.

Vescio, V., Ross, D. & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, No. 24 (1), pp. 80-91.  
<https://doi.org/10.1016/j.tate.2007.01.004>.