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PROBLEMS AND NEEDS OF TEACHERS IN THE ORGANIZATION OF DISTANCE LEARNING IN UKRAINE DURING QUARANTINE CAUSED BY COVID-19 PANDEMIC: 2021 RESEARCH RESULTS

Abstract. The article deals with the results of the online survey on the problems and needs of Ukrainian educators toward the use of the digital tools for distance teaching and learning conducted by the Comparative Studies Department for Information and Education Innovations of the Institute of Information technologies and Learning Tools of the National Academy of Educational Science (NAES) of Ukraine in 2021. Ukrainian teachers and schools are in a situation where distance learning has become a necessity. These circumstances are closely related to the introduction of quarantine measures in all countries of the world in connection with the COVID-19 pandemic. That is why the digital competencies of teachers and school administrators are on the agenda in the education system. What matters today is how teachers and schools develop digital learning environments, what tools they use, what digital skills they can apply for these purposes. 1463 respondents – teachers, school administrators, methodologists, social pedagogues from all regions of Ukraine – took part in the survey. The questions covered the following topics: problems and needs that arise during the implementation of distance and blended learning during quarantine; determining the attitude and readiness of teachers to the use of online tools and online resources during distance and blended learning in quarantine; comparison of the results of the 2021 survey on the use of online tools and online resources with the results of the first survey in the spring of 2020; determining the level of digital competence of teachers through self-assessment based on the "The Digital Competence Framework for Citizens". The answers of the respondents allowed providing proposals to different stakeholders and pointed to further steps in supporting teachers and educational institutions in the organization of distance and blended learning, which is important in the pandemic period. The purpose of the article was to present the survey results and provide proposals to the interested parties (governmental bodies, educational institutions, local authorities) on the concrete steps in the organization of distance learning in secondary schools.

Keywords: professional development; ICT; Digital Tools; Online Survey; COVID-19 Pandemic; Distance Teaching and Learning.

1. INTRODUCTION

The problem statement. The introduction of quarantine in 2020/2021 caused a range of problems connected with organizing distance and blended learning in educational institutions in Ukraine. The process of organizing distance learning involves all stakeholders: teachers, heads of educational institutions, students, parents, business representatives, state and local authorities. The problem of creating proper conditions and ensuring the organization of distance learning for schoolchildren arose both in Ukraine and around the world during the introduction of quarantine measures in connection with the spread of COVID-19.

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Governments have developed strategies to digitize education, train teachers, and involve all stakeholders in the process.

Particular attention should be paid to the organization of distance learning of students in Ukrainian schools in view of the territorial administrative reform that has taken place in the country, which has affected the distribution of powers and responsibilities of local authorities for the functioning and provision of quality education. In particular, the amalgamated territorial communities are responsible for provision of appropriate conditions for the organization of children's education.

The spread of the COVID-19 virus has affected the digital divide in the school system, as evidenced by international approaches to the COVID-19 response in education [1], [2], [3]. This was felt by students and teachers in all countries of the world. According to researchers M. Dorfsman and G. Horenczyk, today there is a so-called "Corona Related Teaching Situation" (CRTS), a phenomenon associated with significant changes in pedagogical practices and approaches to teaching [4].

Teachers are key players in distance learning. That is why the main attention of the state should be focused on comprehensive assistance to teachers in this process. Not all teachers are in equal conditions in the organization and implementation of distance learning, as evidenced by the results of the survey presented. Despite the significant progress made in the field of ICT implementation in the educational process in Ukraine, a wide range of scientific developments and guidelines on how to use digital tools in the teaching process, the issue of capacity building and maintaining the readiness of teachers to use ICT remains unresolved.

Scientists of the Department of the Comparative Studies for Educational Innovations of the Institute of Information Technologies and Learning Tools of the NAES of Ukraine conducted research among teachers through an online survey in January 2021 [5]. The precondition for conducting this research was a preliminary online survey conducted in the spring 2020, which highlighted the problems and needs of teachers in the implementation of distance and blended learning in schools during the first wave of quarantine caused by the pandemic COVID-19 [6]. The online survey was aimed to implement the following tasks: to identify public opinion of educators on the problems and needs that arise during the implementation of distance and blended learning in quarantine period; to determine the degree of teachers' readiness to use online tools and online resources during distance and blended learning; to compare the results of the survey in 2021 on the use of online tools and online resources with the results of the first survey in the spring 2020; to determine the level of teachers' digital competence through self-assessment based on "Digital Competence Framework for Citizens" [7]; to provide appropriate recommendations to stakeholders based on the assessment of the situation during the quarantine.

Analysis of recent studies and publications. The main findings on the use of digital tools and ICT by educators and students in Ukraine are revealed by V.Yu. Bykov, O.M. Spirin, V.V. Oliinyk, O.Yu. Burov, V.I. Lugovy, S.G. Lytvynova and others. These researchers point out teachers' general approaches to the use of ICT, informatisation process in educational institutions, their ICT and digital competence; reveal pedagogical conditions and analyze digital environments in educational institutions; stress on the need of teachers' proficiency development regarding ICT. The mentioned authors have made a significant contribution to the scientific and methodological support for teachers' professional development, theory of informatization of education and practical realization of information and communication technologies in the educational sphere, creation of new training systems and cloud-oriented educational environments, digital educational resources, textbooks and guidelines for educators.

The principles and approaches to the use of cloud-based tools in the classroom are revealed in the works of O.P. Pinchuk [8], M.P. Shyshkina [9], S.G. Lytvynova [10], [11],

O.Yu.Burov [12], Y.G. Nosenko [13] and others. These scientists describe foreign practices in STEM education and the use of ICT tools, forms and methods used by teachers in the classroom, as well as the process of the development of the digital learning environment in schools; provide recommendations to the responsible parties on how to integrate ICT in education.

The research goal. The purpose of the article is to reveal the current needs of Ukrainian educators regarding improvement of their professional skills in the use of digital distance learning during COVID-19 quarantine perform a comparative analysis with the results of the previous study and provide appropriate recommendations to Ukrainian stakeholders and decision makers.

2. RESEARCH METHODS

This section describes the method of preparation and conducting the research as well as its experimental base, participants and research facilities. The study was conducted in the period of 10.01.2021 to 10.03.2021. Empirical data was collected in the period of 12.01.2021 to 28.02.2021. A quantitative research method was used. The study presents a non-representative sample of the target group. A random type of sample was used to conduct an online survey of teachers. The number of respondents is 1463, including 1298 women and 149 men. Analysis and interpretation of quantitative data was carried out using the methods of descriptive statistics and mathematical statistics, the results are presented in the form of diagrams and their interpretations, which are arranged in the relevant thematic blocks.

The form was filled in only at one's own request. The poll was anonymous. All study respondents were informed about the objectives of the study. During the survey the general scientific approaches set forth in the “Regulations on the formation, conduct and control of scientific research and scientific and technical (experimental) developments at the National Academy of Educational Sciences of Ukraine” were followed (1-2/14-350, December 20, 2018), namely: novelty and relevance; compliance with the priorities of state policy and thematic areas of research and scientific and technological development; practical usefulness, possibility of implementation of the given recommendations and conclusions; availability of previous experience and achievements of scientists in performing scientific research.

3. THE RESULTS AND DISCUSSION

The survey identified three main age categories of the respondents: 40-55 years old - 42.6%; 26-40 years old - 32.9%; 55 and older - 20.5%. By the type of educational institutions among the respondents were the representatives of such institutions as: secondary school - 67.2%, lyceum - 13.9%; educational and upbringing complex institution - 10.3%; gymnasium - 3.4%. Distribution of the respondents by the place of residence is: 46.8% - city; 36.7% - village; 16.5% - urban-type settlement. Geographically the study covered all regions in the East, West, South, North and Center of Ukraine.

It was important to determine exactly how the survey participants organized distance learning and what tools they used to conduct lessons during distance and blended learning in the COVID-19 pandemic. It was also interesting to find out which online resources help respondents to prepare for lessons, which of these resources are the most popular and useful for students and teachers. It was found that most respondents use the following digital tools to organize distance learning: Viber - 83%; Zoom - 58.7%; the site of the educational institution - 58.7%; My Class - 20.7%; Padlet - 18.8%; Google Apps for Education - 15.1%; Skype - 14%; Telegram - 13.8%; Electronic diary - 11.7%; Educational platform of the educational

institution - 10%; Jitsi Meet - 9.5%.

In addition, the respondents pointed out to such tools as: Tik-Tok; Microsoft Teams; Cisco Webex; Class Dojo; Edmodo; Moodle; Twitter; WhatsApp. However, neither of these tools scored more than 4%. If we compare the results of two surveys (2020 and 2021) on the use of digital tools for distance learning, we can see (Table 1) that:

- the most popular tools for teachers are Viber (83%) and the school website (58.7%);
- the number of users increased since the 2020 period, namely: Zoom (+ 30.2%), Padlet (+18.2), JitsiMeet (+ 8.8%); Cisco Webex (+ 3.3%); Edmodo (+ 3.2%);
- the responses showed less use of Google Apps for Education (-30.4%), Skype (-23.7%), Telegram (-7.1%);
- My Class continues to be used at approximately the same level (+ 2.2%); Microsoft Teams (-0.7%); Electronic diary (+ 1.4%); ClassDojo (+ 1.6%);
- new tools such as Flipped Classroom (+ 4%), Tik-Tok (+ 4%), Twitter (+ 4%) showed an increase.

Table 1

Comparison of the results of the use of digital instruments by Ukrainian teachers in 2020 and 2021 during distance and blended learning

Instrument	% use in April 2020	% use in January - February 2021	Difference in% (+/-)
Google Apps for Education	45,5%	15,1	-30,4
Zoom	28,5	58,7	+ 30,2
Padlet	0,6	18,8	+18,2
Educational platform of the educational institution	0	10	+10
Twitter	0	4	+4
Edmodo	0,8	4	+3,2
Viber	88,2	83	- 5,2
Web-site of the educational institution	62,7	58,7	-4
JitsiMeet	0,7	9,5	+8,8
Tik-Tok	0	4	+4
CiscoWebex	0,7	4	+3,3
My Class	18,5	20,7	+2,2
ClassDojo	2,4	4	+1,6
Electronic diary	10,3	11,7	+1,4
Moodle	3,4	4	+0,6
Microsoft Teams	4,7	4	-0,7
Telegram	20,9	13,8	-7,1
WhatsApp	13,3	4	-9,3
Skype	37,7	14	-23,7

The respondents' answers indicate that teachers use the following resources to conduct lessons: «На Урок» - 74.4%; YouTube lessons - 75.8%; «Всеосвіта» - 64.6%; All-Ukrainian online school - 38.7%; EdEra - 33.3%; teachers' blogs - 28.4%; Open online lessons - 27.2%; Learning.ua - 24.7%; Prometheus - 19.85%.

Less popular are: Classtime - 7.7%; Kahoot - 8.1%; video lessons on Era TV and Radio Company and local TV channels; video lessons of TRK Kyiv (5.3%); Diya, Digital education (5.2%) and others. Among other instruments teachers indicated: their own developments, presentations, blogs, e-textbooks, their own manuals and materials posted in YouTube. These

resources did not receive more than 1-2% of the responses, which indicates a low ability of the respondents to create their own educational resources (Fig. 1).

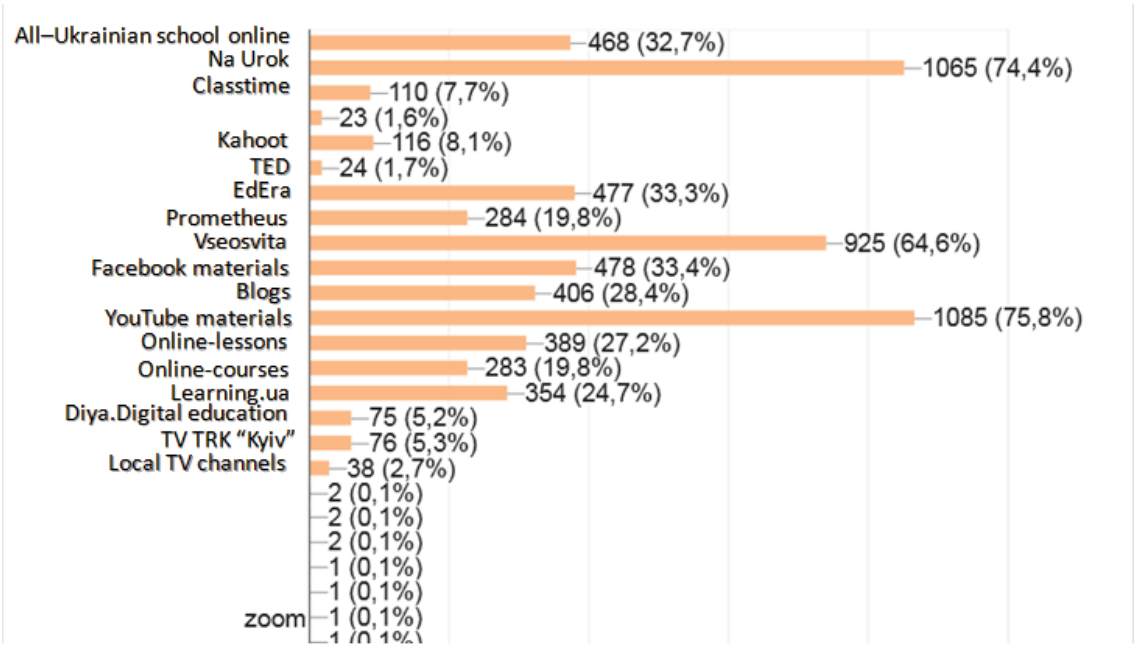

Figure1.Distribution of the respondents' answers to the question "What online resources do you use to conduct lessons?"

If we compare the data of the two questionnaires (2020 and 2021) on the use of online resources for distance learning, we can see (Table 2) that:

- the most popular tool for teachers is YouTube lessons (75.8%);
- there has been an increase in the number of users of «Всеосвіта» (+ 62.6%); «На Урок» (+ 31.7%); materials of teachers' blogs (+ 26.4%); Open online lessons (+ 25.2%);
- there has been an decrease in the number of teachers who use online courses of the Ministry of Education and Science in preparation for external evaluation (-27.3%); Video lessons at TRK Kyiv (- 17.5%); Prometheus (-12.7%); Diya, Digital education (-10.2%); EdEra (-9%); Video lessons on local TV channels (-6.5%);
- teachers continue to use Classtime at approximately the same level (+ 1.5%);
- teachers started to use new online resources, such as the All-Ukrainian online school (+ 38.7%), Learning.ua (+ 24.7%); Kahoot (+ 8.1%).

Table 2

Comparison of the results of the use of online resources by Ukrainian teachers in 2020 and 2021 during distance and blended learning

Resources	% use in April 2020	% use in January - February 2021	Difference in% (+/-)
«Всеосвіта»	2	64,6	+62,6
All-Ukrainian online school	0	38,7	+38,7
«На Урок»	42,7	74,4	+31,7

Blogs	2	28,4	+26,4
Open online-lessons	2	27,2	+25,2
Learning.ua	0	24,7	+24,7
YouTube lessons	72,9	75,8	+2,9
Classtime	6,2	7,7	+1,5
Kahoot	0	8,1	+8,1
Video lessons, local TV channels	11,8	5,3	-6,5
EdEra	42,3	33,3	-9
Diya, Digital education	15,4	5,2	-10,2
Prometheus	32,5	19,8	-12,7
Video lessons on TRK Kyiv	22,8	5,3	- 17,5
Online-courses of MOES	27,3	0	-27,3

Analysis of the answers to the open question "What are the three main obstacles you face during the implementation of distance and blended learning in quarantine?" allowed us to identify the following 10 main problems and challenges faced by the survey participants during the organization and implementation of distance learning:

- insufficient material and technological support of students;
- lack of quality Internet;
- lack of time due to increased workload for teachers;
- insufficient level of material and technological support from educational institutions;
- low level of students' self-organization and motivation;
- lack of parental support;
- insufficient level of teachers' digital competence;
- difficulties with distance learning of primary school students;
- psychological difficulties during distance learning;
- decreasing level of quality of educational services.

These categories should be discussed in more detail. The main problem mentioned by the respondents is insufficient material and technological support of students. Not all students have a personal computer at home, so they are forced to work with different gadgets (tablets, smart phones). But not all families, especially big ones, have the financial capacity to buy them for all children. For this reason, many students do not have the opportunity to receive educational services remotely.

The second most common problem is the lack of quality Internet connection. This problem concerns all regions of Ukraine. In rural areas, there is weak or no connection. In the eastern regions of Ukraine, electricity supply is often cut off. In cities, there is a drop in speed in the first half of the working day, due to the overloaded network.

Teachers point out that one of the problems is lack of time due to the increased workload for teachers. They have to spend more time preparing for online lessons, because it requires creating presentations, recording videos, constant checking of written works.

Insufficient level of school logistics forces many teachers to use their own personal computers to organize distance learning. Teachers note that outdated equipment and software are used in the workplace, and they have to pay for the Internet connection additionally. An important component of the educational process is the cooperation with all participants, including students and parents. Low level of students' self-organization and motivation is also a problem when organizing distance learning. Teachers note that not all students are present at online lessons, they passively respond, do not do their homework. Distance between teachers and students causes students' irresponsibility, lack of skills in self-organization and independent work.

Also teachers complain about the lack of support from parents: lack of control over children's distance learning, over how homework is done; lack of desire to help children; lack of interest in children's productive learning; some parents do homework for their children; some parents show irresponsible or negative attitude to their children's online learning.

One of the problems is teachers' insufficient level of digital competence, which is manifested in teachers' not being able to use digital tools, online platforms etc.

Teachers also point out the difficulties and impossibility of distance learning for primary school students. Elementary students without parents cannot connect to online lessons due to their age, they do not have the skills to work independently, and they need constant presence and assistance from adults.

Any unusual conditions cause stress and this is a normal reaction of the human body. The main thing is to understand what causes stress, what internal resources are spent and how to restore them. The respondents report psychological difficulties during distance learning. They occur when teachers lose feedback from students because students do not turn on their camera during class and respond passively; there is a lack of active communication, which leads to a certain social distance and emotional exhaustion; there is concern that prolonged use of the devices and restriction of physical activity will lead to poor health. All this can lead to professional burnout of teachers if they do not receive appropriate psychological support and supervision.

A separate problem is the decline in the quality of educational services. This is due to many aspects: regular absences from classes, because not all students are connected to online lessons; teachers' lack of understanding of how to control and assess students' knowledge during distance learning; lack of cooperation between teachers and parents; impossibility of practical work. Poor delivery and mastering of the educational material might lead to problems during the external independent evaluation and final state certification.

A comparison of the main problems and challenges faced by teachers during the organization and implementation of distance learning in 2020 and 2021 (Table 3) shows that:

- some of the problems mentioned by teachers in 2020 were successfully solved, in particular: the lack of specific guidelines on the organization of distance learning from the school administration and Ministry of Education and Science (MoES); lack of experience in the organization of distance learning; lack of teachers' motivation to implement distance learning;
- problems that have existed for almost a year and remain unresolved are: insufficient technical logistics of students; lack of quality Internet connection; lack of time due to increased workload for teachers; insufficient level of material and technological support of educational institutions; low level of students' self-organization and motivation; insufficient level of teachers' digital competence;
- new problems have arisen related to the difficulties of distance learning of primary school students, psychological problems of all participants in the educational process, decrease in the quality of educational services, lack of parental support.

Table 3

The main problems and challenges during the organization and implementation of distance learning in 2020 and 2021 in Ukraine

2020	2021
Insufficient logistical support of students	Insufficient logistical support of students
Lack of quality Internet	Lack of quality Internet
Lack of time due to increased workload for	Lack of time due to increased workload for

teachers	teachers
Insufficient level of material and technological support of educational institutions	Insufficient level of material and technological support of educational institutions
Low level of students' self-organization and motivation	Low level of students' self-organization and motivation
Insufficient level of teachers' digital competence	Insufficient level of teachers' digital competence
Lack of specific instructions on the organization of distance learning from the school administration and MOES	-
Lack of teachers' experience in the organization of distance learning	-
Insufficient motivation of teachers to implement distance learning.	-
-	Difficulties with distance learning of primary school students.
-	Psychological difficulties during distance learning.
-	Decrease in the level of quality of educational services.
Lack of parental support	Lack of parental support

It was found that teachers follow the news about distance learning courses using ICT tools through such information channels as:

- social networks - 69.8%;
- mailing from the administration of the educational institution - 64.4%;
- MOES website - 59.5%;
- in-service teacher training institutions' sites - 55.7%;
- teachers' blogs - 24.2%;
- sites of public or business organizations - 7.6%.

The respondents also pointed to such news sources as: university websites, newsletters from education departments, online educational resources. However, these responses did not score more than 1% each.

In the teachers's opinion, the most effective online forms of professional development are the following:

- online courses - 32.1%;
- online master classes - 19.2%;
- webinars - 17.9%;
- online conferences / seminars - 12.1%;
- mass open courses - 10.6%;
- online professional competitions - 4.6%.
- all forms of online professional development are effective – 9%.

Among other things, teachers indicated: online projects, webinars, online face-to-face courses, etc.(Fig.2).

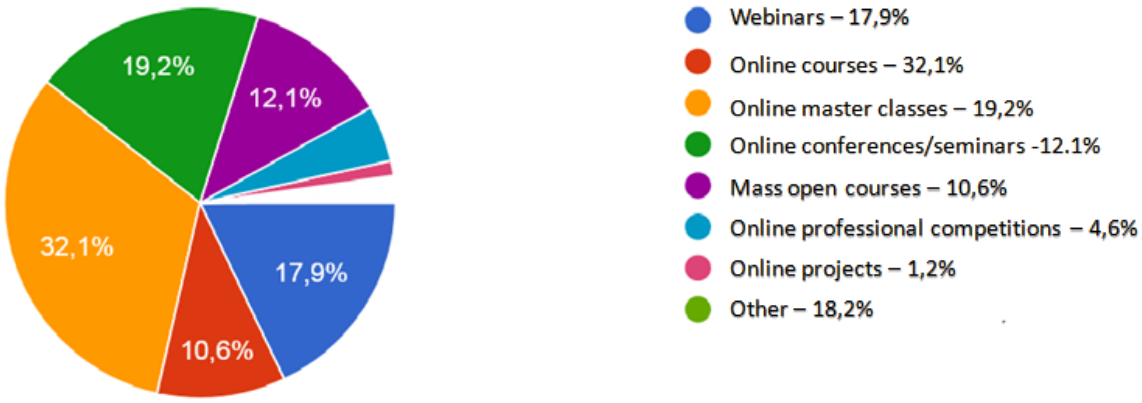

Figure 2.Distribution of the respondents' answers to the question "What online forms of professional development do you consider the most effective?"

The market for the provision of educational services for professional development of teachers in Ukraine is slowly but steadily growing, which is a positive trend because it gives teachers the right to choose.This is evidenced by the respondents' answers' regarding who conducted the training for teachers:

- in-service teacher training institute - 77.9%;
- educational institution (university, institute, college, school) - 37.6%;
- public organization - 10.5%;
- private company - 8.3%;
- international organization - 7.1%;
- individual entrepreneurs - 6.2%.

Among the main needs of the professional development, the respondents identified the following:

- methods of online lessons and features of the blended learning system;
- courses for New Ukrainian School teachers on distance learning in quarantine;
- learning to make videos and audios, training in blogging, editing lessons in the format of presentations and videos;
- universal use of new, interesting, creative online tools and services and distance learning technologies;
- integrated online courses in several subjects;
- more practical advice on online tools;
- getting acquainted with new online workshops for classwork;
- access to online courses, webinars;
- evaluation in terms of distance learning;
- quick online consultations on specific issues, qualified consultations and practical assistance in mastering new tools by specialists;
- educational and methodological support for New Ukrainian School reform: clarity, quality and specificity.

4. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

The respondents to the online questionnaire believe that the introduction of ICT and the use of digital tools in general secondary education are not effective enough. The respondents' main problems include: inadequate access to digital devices, poor provision of high-speed Internet connection, inadequate management of access to IT infrastructure by educational institutions, lack of a single platform with developed lessons and a system of exercises and assessment work, emotional stress and increased workload on teachers and students, which is associated with a significant period of time in front of a computer screen, both to prepare for lessons and to perform tasks, non-adaptation of New Ukrainian School topics to distance learning, low-quality software on school laptops, parents' resistance and negative attitude to distance learning, etc.

The obtained results, in our opinion, can be used by the following parties:

– government agencies, the *Ministry of Education and Science of Ukraine*, education departments at various levels (to develop action plans, programs, activities aimed at supporting teachers in quarantine). An important role in the provision of the educational process is played by the *Ministry of Digital Transformation*, which is to ensure and control the process of equipping educational institutions with digital tools. A roadmap for the digitalization of educational institutions should be drawn up, which will ensure the creation of action plans for the regions of Ukraine and for amalgamated communities on this issue. In addition, an up-to-date analysis of the current state of equipment of schools and teachers personally should be conducted with a view to the implementation of distance learning for students. The *Ministry of Social Policy* should analyze the ability of low-income families to provide school-age children with access to the Internet and digital learning tools, and promote public initiatives to collect second-hand computer equipment that can be used in schools and families;

– general *secondary education institutions* and other educational institutions have to: build communication channels, organize online support and inform school staff about work plans and available hardware and software, opportunities for students and parents in a particular region and educational institution, provide rapid response to the needs of teachers and students; support teacher innovations;

– institutions of *postgraduate pedagogical education* and other institutions providing teacher training have to: improve methodological support of online facilities for teacher training, in particular on the use of ICT and distance learning; inform teachers about new online opportunities, advising them on distance learning. These institutions can be involved in the creation of "hotlines" to advise teachers on the use of ICT and solve problems in this area, provide technical support for distance learning;

– research institutions, in particular in the *National Academy of Educational Science (NAES) of Ukraine* have to develop tools and methods to support online learning in various subject areas, identify gaps and offer innovative, effective, scientifically sound online tools, and provide scientific and methodological support based on the latest developments; it is important to create new digital platforms with available online resources for teachers of all subjects and step-by-step guidelines of their use;

– other *stakeholders*, including civil society organizations can also support online learning in quarantine by monitoring and evaluating the level of access to educational services and the distance education process in respect of the students' rights to education. The Education Ombudsman should be involved in the process of resolving the mentioned issues and also in observance of students' right to quality education and proper working conditions of teachers. Consultations with civil society and Ombudsman representatives should lead to the development of concrete steps and plans for monitoring the observance of students' and teachers' rights;

– *local authorities* should develop and implement state grant support programs for public initiatives to overcome the challenges facing teachers in implementing distance learning.

The obtained results of the conducted survey allow concluding that today the issue of distance and blended learning remains insufficiently resolved. The main drivers of this process are teachers who directly organize such activity. It is important to create conditions for teachers, as well as for students, to ensure an appropriate level of distance learning, especially during quarantine.

Further research can be conducted in the sphere of the assessment of digital tools by teachers and educational institutions as well as in the sphere of the development of the database of useful recourses that can be used by teachers of different subjects. This can help practitioners to reach instruments and build their lessons according to their students' needs.

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ПРОБЛЕМИ ТА ПОТРЕБИ ВЧИТЕЛІВ В ОРГАНІЗАЦІЇ ДИСТАНЦІЙНОГО НАВЧАННЯ В УКРАЇНІ ПІД ЧАС КАРАНТИНУ, СПРИЧИНЕНОГО ПАНДЕМІЄЮ COVID-19: РЕЗУЛЬТАТИ ДОСЛІДЖЕННЯ 2021

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Анотація. У статті розглянуто результати онлайн опитування проблем і потреб українських освітян щодо використання цифрових засобів під час дистанційного навчання, проведеного відділом компаративістики інформаційно-освітніх інновацій Інституту інформаційних технологій та засобів навчання НАПН України у 2021 р. Українські вчителі та школи перебувають у ситуації, коли дистанційне навчання стало необхідністю. Ці обставини тісно пов'язані з запровадженням карантинних заходів у всіх країнах світу у зв'язку з пандемією COVID-19. Саме тому цифрова компетентність учителів та керівників закладів загальної середньої освіти на порядку денному в системі освіти. Сьогодні важливо те, як учителі розвивають цифрове освітнє середовище, які інструменти використовують, які навички вони можуть застосувати для цих цілей. В опитуванні взяли участь 1463 респонденти - учителі, керівники, методисти, соціальні педагоги з усіх регіонів України. Питання охоплювали такі теми: проблеми та потреби, що виникають під час впровадження дистанційного та змішаного навчання під час карантину; визначення ставлення та готовності вчителів до використання онлайн інструментів та ресурсів під час дистанційного та змішаного навчання на карантині; порівняння результатів опитування 2021 року щодо використання онлайн інструментів та онлайн ресурсів з результатами першого опитування навесні 2020 року; визначення рівня цифрової компетентності вчителів шляхом самооцінки на основі "Рамки цифрової компетентності для громадян". Відповіді респондентів дозволили надати пропозиції та рекомендації зацікавленим сторонам, визначити перспективи подальших кроків підтримки вчителів і закладів освіти в організації дистанційного та змішаного навчання, що є важливим у період пандемії. Метою статті було представити результати опитування та надати пропозиції зацікавленим сторонам (державним органам, навчальним закладам, органам місцевого самоврядування) щодо конкретних кроків в організації дистанційного навчання в закладах загальної середньої освіти.

Ключові слова: професійний розвиток; ІКТ; цифрові інструменти; онлайн опитування; COVID-19; дистанційне навчання.

ПРОБЛЕМЫ И ПОТРЕБНОСТИ УЧИТЕЛЕЙ В ОРГАНИЗАЦИИ ДИСТАНЦИОННОГО ОБУЧЕНИЯ В УКРАИНЕ ВО ВРЕМЯ КАРАНТИНА, ВЫЗВАННОГО ПАНДЕМИЕЙ COVID-19: РЕЗУЛЬТАТЫ ИССЛЕДОВАНИЯ 2021

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Аннотация. В статье рассмотрены результаты онлайн-опроса проблем и потребностей украинских педагогов по использованию цифровых средств при дистанционном обучении, проведенного отделом компаративистики информационно-образовательных инноваций Института информационных технологий и средств обучения НАПН Украины в 2021 г. Украинские учителя и школы находятся в ситуации, когда дистанционное обучение стало необходимостью. Эти обстоятельства тесно связаны с введением карантинных мероприятий во всех странах мира в связи с пандемией COVID-19. Именно поэтому цифровая компетентность учителей и директоров школ на повестке дня в системе образования. Сегодня важно то, как учителя развивают цифровую образовательную среду, какие инструменты используют и какие навыки могут применить для этих целей. В опросе приняли участие 1463 респондента - учителя, директора, методисты, социальные педагоги со всех регионов Украины. Вопросы охватывали такие темы: проблемы и потребности, возникающие при внедрении дистанционного и смешанного обучения во время карантина; определение отношения и готовности учителей к использованию онлайн инструментов и ресурсов при дистанционном и смешанном обучении на карантине; сравнение результатов опроса 2021 года по использованию онлайн инструментов и ресурсов с результатами первого опроса, проведенного весной 2020 года; определение уровня цифровой компетентности учителей путем самооценки на основе "Рамки цифровой компетентности для граждан". Ответы респондентов позволили выработать рекомендации заинтересованным сторонам, определить перспективы дальнейших шагов поддержки учителей и учебных заведений в организации дистанционного и смешанного обучения. Целью статьи было представить результаты опроса и предоставить предложения заинтересованным сторонам (государственным органам, учебным заведениям, органам местного самоуправления) относительно конкретных шагов по организации дистанционного обучения в школах.

Ключевые слова: профессиональное развитие; ИКТ; цифровые инструменты; онлайн-опрос; COVID-19; дистанционное обучение.

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