Chapter I. THEORETICAL AND PEDAGOGICAL PROBLEMS OF MODERN EDUCATION

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ТРЕНІНГИ ЯК ВИД НЕФОРМАЛЬНОЇ ОСВІТИ ТА ЇХ ЕФЕКТИВНІСТЬ У НАВЧАЛЬНОМУ ПРОЦЕСІ: ДОСВІД ТА ПЕРСПЕКТИВИ

Анотація. У статті розглянуто педагогічний потенціал тренінгів як інноваційного способу здобуття неформальної освіти та саморозвитку фахівця Нової української школи. Розглянуто трактування терміна «неформальна освіта» науковою спільнотою, наведено характеристики неформальної освіти, перелічено можливі інституції її отримання. Визначено змістовне наповнення різних форм неформальної освіти в напрямі вдосконалення цифрової компетентності педагогів. Широко представлено передовий досвід організації та проведення тренінгів з підвищення кваліфікації науково-педагогічних та педагогічних працівників на базі Центру інноваційних освітніх технологій "PNU EcoSystem" Прикарпатського національного університету імені Василя Стефаника. Доведено, що практика такої роботи є ефективною в контексті становлення Нової української школи, оскільки базується на перевіреному досвіді тренерів, здобутому під час численних навчальних візитів до провідних університетів світу, які претендують на найкращі інноваційні розробки щодо вдосконалення навчального процесу. Підвищення кваліфікації вчителів початкових класів засвідчило продуктивність проведення таких тренінгів, адже вони сприяють не лише творчій взаємодії учасників, а й формують уміння використовувати отримані практичні навички для розробки цікавого навчального контенту; спонукають до вдосконалення загальнокультурного та професійного розвитку слухачів; задовольняють соціально-комунікативні та інтелектуальні потреби; стимулюють професійне самовдосконалення. Досвід організації навчання показує, що учасники, які знайомі лише з базовим використанням цифрових інструментів, схильні більш змістовно використовувати їх у своїй педагогічній практиці. Сьогодні компетентний педагог здатний не лише використовувати, але й створювати інноваційні розробки, ураховуючи їх максимальний потенціал в освітньому контексті. .

Ключові слова: тренінг, неформальна освіта, навчальний процес, учитель початкової школи, цифрова компетентність.

TRAININGS AS A KIND OF INFORMAL EDUCATION AND THEIR EFFICIENCY FOR EDUCATIONAL PROCESS: EXPERIENCE AND PROSPECTS

Abstract. The article shows pedagogical potential of trainings as an innovative way of obtaining informal education and self-development of a specialist of the New Ukrainian School. The interpretation of the notion "informal education" by the scientific community is considered, the characteristics of informal education are given, the possible institutions of its receipt are listed. The content of various forms of informal education in the direction of improving the digital competence of teachers is determined. The best experience of organizing and conducting trainings on professional development of scientific and pedagogical workers on the basis of the Center of Innovative Educational Technologies "PNU EcoSystem" of Precarpathian National University is widely presented. It is proved that the practice of such work is effective in the context of the New Ukrainian School, as it is based on the best experience of trainers gained during numerous study visits to leading universities in the world, claiming the best innovative developments for improvement of learning process. The training of primary school teachers has evidenced the effectiveness of such trainings, as they not only promote creative interaction of participants, but also develop the ability to use practical skills and interesting educational content; encourage the enhancement of general cultural and professional development of learners; meet socio-communicative and intellectual needs; stimulate professional self-perfection. The experience of organizing training shows that participants who are familiar only with the basic use of digital tools, tend to apply them more meaningfully in their teaching practice. The research proves, a competent teacher is able not only to use but also to create innovative developments, taking into account their maximum potential in the educational context.

Keywords: training, informal education, education process, primary school teacher, digital competence.

INTRODUCTION

The problem formulation. Informal education has become particularly relevant at the beginning of the XXI century and can be called an educational trend. The main factors for this process are public demands due to Covid pandemic worldwide and russian aggression in Ukraine which made thousands Ukrainians unable to continue regular way of gaining knowledge. Moreover, active implementation of lifelong learning concept in accordance with national and international programs in different countries led to efficient practice of blended organized advanced trainings providing learners with numerous possibilities receiving necessary knowledge and skills. Involvement of a citizen in lifelong learning is a consequence of globalization and informatization, which constantly pushes a person to self-improvement and assimilation new life, social, professional experience for self-realization, survival and success. This is the key to economic and cultural development of society, any state.

Nowadays the Law of Ukraine "On Education" defines three types of education - formal, non-formal and informal. In the Law of the concept "informal education" is referred to as "education, which is usually obtained by educational programs and does not provide for the recognition of state-determined educational qualifications by level of education, but may end in assignment professional and / or awarding of partial educational qualifications" (Law of Ukraine "On Education", 2017). Unlike structured, formal education, informal learning fosters a person's intrinsic desire to learn and gives the freedom to find knowledge from preferred sources. Informal education promotes the development of axiological, communicative, motivational, cognitive, socio-cultural and creative potential of the individual, increases its competitiveness in the labor market, and helps develop the ability to actively participate in the society of the XXI century. Informal learning refers to learning that occurs away from a guided, formal classroom environment. This is a style of learning in which the learner sets personal independent goals and objectives.

Analysis of recent research and publications. Researchers of problems of pedagogical innovations (O. Arlamov, T. Blyznyuk, M. Burgin, V. Zhuravlyov, V. Zagvyazinsky, A. Nichols, etc.) try to correlate the concept of the new in pedagogy with such characteristics as useful, progressive, positive, modern, advanced. Such a modern innovation is a training as a way of obtaining knowledge and skills, in which on the one hand, there is the teacher who plays a role of a trainer, and learners - members of the training group, on the other hand. In pedagogical work. R. Buckley and J. Caple defines training as planned and systematic efforts modifying or developing human knowledge, skills, attitudes through which one or more activities can be achieved effectively. O. Bezpalko understands the concept of "training" as a way to reprogram the existing human model management of behavior and activities. O.Onishchenko considers trainings as educational games that combine both educational and gaming activity. According to V. Fedorchuk, the training is subjective methodology in specific procedures as a means of influencing the individual, aimed at creating conditions for purposeful changes.

AIM AND TASKS RESEARCH. Within this scientific study we aim to analyze the pedagogical potential of trainings as an innovative way of obtaining informal education and self-development of a specialist of the New Ukrainian School; offer the interpretation of the notion "informal education" by the scientific community, present the characteristic features of informal education and list possible institutions to gain it.

RESEARCH METHODS. In the provided paper theoretical research methods were used, including analysis and synthesis research results on the research problem, generalization – to formulate conclusions, forecasting – to determine the prospects for further research.

RESULTS OF THE RESEARCH

The concept of "informal education" is defined by many researches, official sources in various aspects (Table 1):

Table 1. The essence of the concept of "informal education"

Definition	Source
Learning takes place within the guided activities (in terms of learning objectives, duration of training), and there is a certain form of support for learning (for example, the relationship " teacher - student ", "student - teacher" or "student - student").	EU recommendations on the definition of informal learning
Learning is based on guided activities that are not explicitly labeled as training (in terms of tasks, duration or support for learners), but which contain a significant learning element but do not usually end with certification.	European Center for the Development of Vocational Education for the European Union
Learning which is usually not accompanied by the issuance of a document, takes place in educational institutions or public organizations, as well as during individual lessons with a tutor or a coach.	Memorandum of Continuing Education of the European Union
Professionally oriented and general cultural training courses in education centers, in the lectures of the society "Knowledge", on television, at various intensive training courses.	Analytical note: "Lifelong learning: world experience and Ukrainian practice"

References: summarized by the author according to information sources: 4,5,7,9 .

Informal education is organized and provided by a specialist or training institution in certain areas of knowledge and practical skills. Mostly, informal education is not supported by documentary evidence of acquired knowledge and skills, the quality of learning material, skill level and so on. Such education may have specific learning objectives or be aimed at a general increase in mental cognitive and creative activity. Informal learning is not limited either geographically (available at any point) or time (usually short-term); it is characterized by the use of innovative teaching technologies and methods.

The experience of the most successful countries shows that informal education in all its manifestations allows to increase human capital, which contributes to a better productivity, generation and development of innovations, development of technological entrepreneurship, etc. Informal education, in the form of intensive programs and trainings, mass open online courses, allows to form practically significant competencies. It promotes the development of 21st century skills oe "soft skills" as they say today - such as creativity, critical thinking, teamwork, information and time management and achievement of subject and personal outcomes stated in school standards. In fact, informal education solves the problems that a traditional school system sometimes does not cope with.

The comparative characteristics of the determining features of different types of education (learning) are provided in Table 2.

Formal education (learning)	Informal education (learning)
takes place in public educational institutions, or those recognized by the state	takes place outside the national education system
governed by the state	guided by the current needs of the market
long-term	mostly short-term
continuous, guided	takes place in any convenient mode for the learner
centralized	decentralized
external evaluation of learning outcomes	based on self-esteem
group work form	individual, or in a small group form

The system of formal education is constantly catching up with the technology renewal, socio-economic changes and new needs of the labor market. At the same time, the practices of informal education are widely developed, which compensate for this situation and ensure the acquisition of relevant competencies for all groups of learners.

There are many benefits of informal learning activities for learners:
· *Low Stress* - With no formal testing, there is no high-pressure situation.
· *Flows with Daily Work* - Informal learning activities fit easily into a work day. People continue to learn and grow according to what they need to solve a problem or get through a situation.
· *Intuitive* - People naturally learn in an informal setting, they have been doing it their whole lives.
· *Encourages Curiosity* - Without the pressure of performance, people are free to follow their interests, even if it takes them away from the original idea.

Informal learning comes in various forms, including face-to-face (trainings, seminars, master classes, workshops, etc.) and distance (distance courses, webinars); implies different activities: viewing videos, self-study, reading articles, participating in forums and chat rooms, acquiring new skills (digital, communication, critical thinking and problem-solving); and offers performance support, coaching sessions, and games etc. The latter has a number of advantages, as it allows you to independently plan training, choose to master several topics or disciplines, provides feedback to teachers and other participants, and gives the ability to cancel training or postpone it at any time. During distance learning it is important to self-organize, rationally plan your time, be able to choose and look for only the necessary, important and useful directions.

One of the popular and effective methods to help a person meet the requirements of modern society in maintaining professional efficiency and appropriate relationships between people is to teach them through training technologies.

In the nineteenth century, training emerged as a method of conducting psychotherapeutic work in medicine. In the next century, it spread in practical psychology as an effective expertise of personal development, and as a form of education in vocational education. The introduction and use of training technologies has recently taken place in various spheres of human activity: higher education, the military sphere, the practice of conducting training sessions in the activities of practical psychologists, organizational psychologists, and others.

According to R. Buckley and J. Capley, (R. Buckley, J. Capley, 2009) training is a planned and systematic effort to modify or develop knowledge (skills) and attitudes of a person through practice, in order to obtain the efficiency of one or more activities. Training involves enabling a person to acquire the knowledge, skills and abilities necessary for excellent performance of specific tasks.

In our view, training is an intensive form of learning and involves the acquisition of practical skills, and only a minor part of it is theory. The purpose of training sessions is active, conscious learning of a certain behavior by a person, rather

than analysis or interpretation of its problems to further change or elimination. The main task of the trainings is to gain practical skills that may be needed in further life. Learning in this case is more through action and analysis of experience.

The contents of training sessions should be focused on achieving the objectives and goals, providing answers to problems and needs of participants, formation of their core values, knowledge, skills and abilities. It is important that the trainings should be scientifically proven and focused on their practical application. The training session is to ensure active participation and creative interaction of participants with each other and with the couch in the form of group work. Trainings usually include teamwork, practical tasks, brainstorming, role-playing games often with the use of digital technologies. This is the best form of acquiring skills, which gives the opportunity to look at yourself from aside, get adequate criticism from peers, work on self-improvement. The main advantages of attending trainings are:

- gaining knowledge. Despite the fact that the trainings are aimed at improving mainly practical skills, a certain theoretical basis is also a vital part of them;
- opportunity to look at yourself from aside. The participants not only change themselves, but also help others become more competent and skilled working on themselves. During the training one can get a conscious reaction from peers;
- communication with compatible people. One way or another, during the training you will have to deal not only with the coach, but also with other people. Such acquaintances can be extremely useful for further collaboration.

The training session, normally, consists of three parts, namely: introductory, basic and final. The introductory part involves identifying expectations from the training, acquaintance or ice-break period (if necessary), creating a friendly atmosphere, clarifying or repeating the rules, as well as feedback - updating the material of the previous lesson. "Icebreaking" techniques deserve our particular attention as they help trainees not only get acquainted with each other, imagine themselves in a proper environment, but also share previous experiences, create teams, etc. "Icebreaking" exercises can vary depending on the type, topic of the training and level of acquaintance of group members with each other. They reveal the creative potential of the participants, "break" communication barriers, ensure the involvement of everyone in joint work project, develop an atmosphere of trust. The duration of the introductory part varies from ten to twenty minutes.

In the main part of the training session is selected combining theoretical and practical blocks. From our experience we offer theoretical (information) as follows (Figure 1):
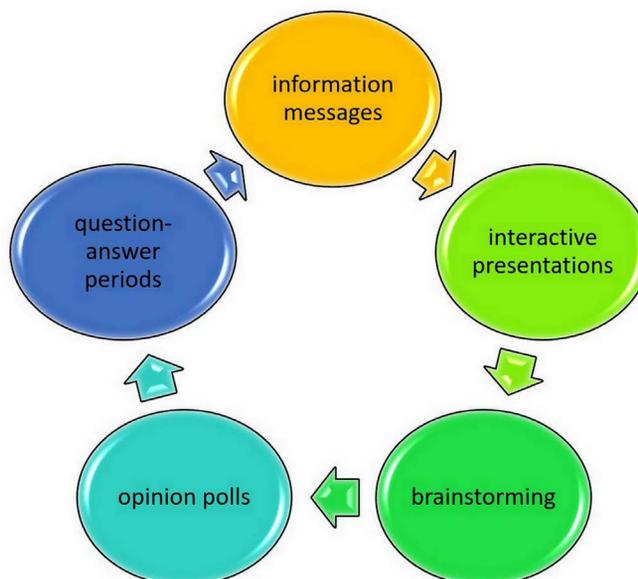

Figure 1. Options of the theoretical part of the training

The practical (interactive) block includes: group work; projects presentation, creation and delivery of educational content with the use of newly-acquired digital tools; analysis of pros and cons of presented creations; role games; guided discussions and debates, etc.

We consider it important to alternate between practical and theoretical blocks, to take breaks with the help of interactive exercises to relieve muscle and psychological tension. The coach (es) needs to organize all the content in a logical sequence and select key knowledge and skills that can be acquired by participants in the allotted time.

The final part of the training session includes: summarizing the lesson; feedback from participants on the topic of the current training; reflection; training completion procedure with awarding the certificates. From our experience we find clarifying information of further cooperation vital to build future cooperation therefore try to understand which topics the participants preferred or which deserved more detail attention (Fig. 2, 3).

13. Які питання Ви б хотіли розглянути на наших наступних зустрічах для підвищення якості викладання предметів STEM у ПТЗО? (можливість в...chools? (possibility to choose several options)
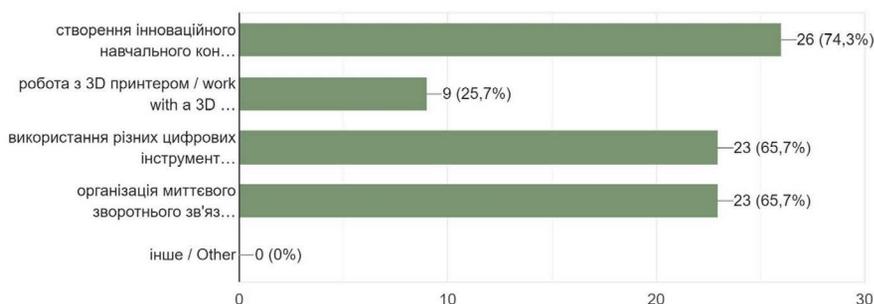
35 відповідей

Figure 2. Participants' feedback on the topics of further interest.

From Fig. 2, the coaches can understand that the respondents find it important to learn in further sessions new digital tools aimed at creating innovative educational content, organizing immediate feedback with the audience, and trainings based on improving knowledge and ability to work with 3D printer.

10. Які теми воркшопу для Вас виявилися найбільш цікавими? (можливість вибору кількох варіантів) / What topics of the workshop were the ...g for you? (possibility to choose several options)
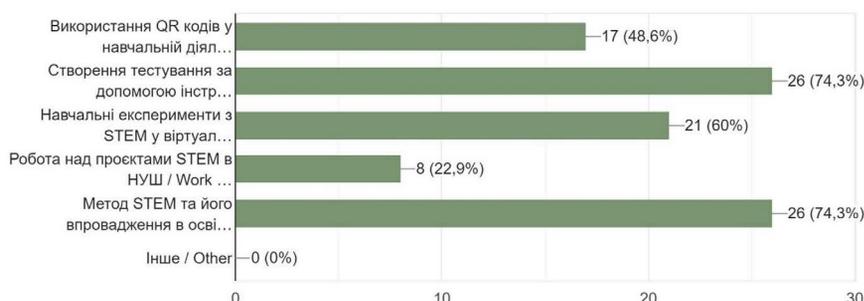
35 відповідей

Figure 3. Participants' feedback on the topic of the current training.

Data from Fig.3 shows that information of suggested topics on using QR codes in education process, organizing testing as a part of formative assessment in classes with service Kahoot, carrying out experiments in virtual labs of GO-Lab platform at STEM lessons were of great interest for the in-service school teachers.

Thus, Precarpathian National University named after Vasyl Stefanyk can boast of its own experience in using different forms of conducting trainings (online, offline and blended learning) and services for informal education. It has become a common practice to enroll students, academic staff of the university, educators of general secondary educational institutions, vocational colleges and administration of education establishments in online and offline sessions for participance in advanced trainings.

Another good example in this context is assessment of students learning outcomes for taking courses on the platform Coursera for Campus instead of passing the relevant topics of a particular academic discipline. The university administration assisted in free access to the courses for teachers and students of different faculties and departments. The Coursera for Campus platform collaborates with the leading universities from around the world and offers courses in the fields of engineering, humanities, biology, social sciences, mathematics, business, computer science and more. This practice started due to the rise of Covid pandemic in 2019 and is particularly relevant in 2022 at times of russian aggression in Ukraine. As a result, thousands of students and academic staff of the PNU successfully accomplished the trainings, were certified and evaluated accordingly by the teachers (Blyznyuk, T., 2018).

Another example of conducting trainings is aimed at a different purpose, namely professional development of the teaching staff of various types of educational institutions held on the basis of the Center of Innovative Educational Technologies "PNU EcoSystem". A group of coaches of the Centre has been organizing offline and online advanced training sessions on a regular basis for more than three years according to the Resolution of the Cabinet of Ministers of Ukraine dated 27.08.2010 № 796 "On approval of the list of paid services that may be provided by educational institutions, other institutions and establishments of the educational system belonging to the state and municipal ownership". A wide range of innovative topics interesting and relevant for the participants are offered: "Innovative

teaching/learning technologies in higher education" (for the academic staff of medical institutions); series of webinars for pedagogical (scientific and pedagogical workers) on the introduction of the latest teaching methods and tools in the educational process; "Digital technologies in STEAM-education" for teachers of vocational education institutions; training sessions "Digital and Media Competence of Educators" to improve the skills of pedagogical staff of pre-school sector and general secondary education institutions; training course "From classical lessons to inquiry-based learning" for general secondary school teachers and academic staff of Ukrainian universities; study-training "Digital competence of a teacher" for pedagogical workers of preschool and general secondary education institutions, speech therapists, and many other similar events. Many of the events were organized and conducted within the framework of the MoPED project of the EU ERASMUS + KA2 «Modernization of Pedagogical Higher Education by Innovative Teaching Instruments» (No 58-1-2017-1-UA-EPPKA2-CBHE-JP).

Such trainings are always aimed at enriching the practical knowledge and skills of teaching staff to intensify the learning process using innovative educational technologies, digital tools and resources, which is especially important in the context of contemporary distance learning. According to the survey conducted within such event, we realize that most of the information and knowledge obtained will be used by the participants in their educational practice-on-the-job (Fig. 4). The organizers emphasize the importance of uniting the region's scientific and pedagogical potential to stimulate educators' motivation to lifelong learning, improve professional development and professional competence, and increase the quality of educational services.

Чи будете Ви використовувати отримані знання у практичній діяльності? / Will you use the acquired knowledge in practice?
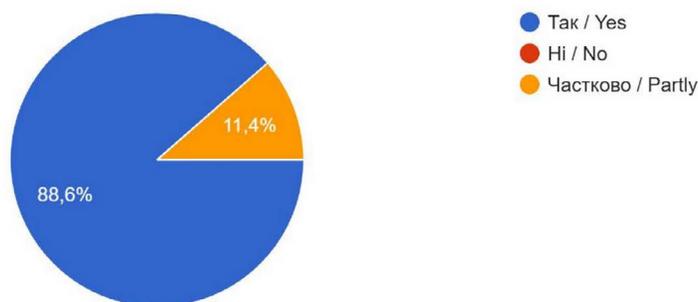
35 відповідей

- Так / Yes
- Ні / No
- Частково / Partly

11,4%

88,6%

Figure 4. Participants' feedback on urgence of a current training.

The academic community and higher education students participate in a variety of academic integrity activities, including a roundtable on «Academic Integrity in the Educational Environment: Challenges and Practices», and a webinar on «How to Build a Quality Assurance Center in Waterloo University», within the framework of the Academic IQ Initiative (Academic IQ) project, PRO Integrity: Implementation Tools in Higher Education Institutions, conducted by the President of the International Foundation for Educational Policy Research, Professor T. Finikov of the University of Warsaw and a member of the National Agency for Quality Assurance of higher education by A. Artiukhov, online seminars «Academic integrity and its tools», «Academic integrity and its requirements for qualifications (technological aspect)», initiated and conducted by members of the University Commission on Ethics and Academic Integrity and the employee we are the Scientific Library within the classes of the school of academic integrity, etc.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Therefore, we might draw a conclusion, trainings as an integral part of informal learning have become a significant part of the educational process at all the levels of education beginning from the preschool sector. In our view, non-formal pedagogical education is effective in the context formation of the New Ukrainian School, as it is based on the tested experience of coaches received at numerous study visits to top world universities, which can claim the best well-organized developments in improvement of the teaching/learning process. Advanced trainings for primary school teachers witnessed their productivity, because they promote creative interaction, form the ability to use practical skills in working out new educational content, contribute to general cultural and professional development of trainees, meet socio-communicative and intellectual needs, stimulate professional self-improvement. Experience in organizing training on the basis of the Center of Innovative Educational Technologies "PNU EcoSystem" shows that the participants who were acquainted with only fundamental use of digital tools tend to explore how to use them in a more meaningful way in their teaching practice. The participants became encouraged to maximise their digital skills from a pedagogical perspective fostering the integration of digital competence in an effective and engaging way with their students for a complete teaching and learning experience. Nowadays a digitally-competent educator, mentor is able to use and furthermore, create digital and innovative resources to their maximum potential in an educational context. Designing,

planning and implementing the use of digital technologies in the different stages of the learning process is the focus of our training programs.

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