

PECULIARITIES OF USING NON-FORMAL EDUCATION AS AN INNOVATIVE COMPONENT AT TECHNICAL UNIVERSITY

ОСОБЛИВОСТІ ВИКОРИСТАННЯ НЕФОРМАЛЬНОЇ ОСВІТИ ЯК ІННОВАЦІЙНОГО КОМПОНЕНТУ У ТЕХНІЧНОМУ ВУЗІ

If we turn to the historical factor, non-formal education institutions were not recognized as formal educational institutions for a long time, but at the current stage of the development of democratic and social education the need for non-formal education is growing considerably. As evidenced by the analysis of scientific research on this issue, the development of non-formal education is an important, natural factor in the development of democratic processes in the field of education. Its relevance is confirmed by normative documents of international organizations: UNESCO, the European Union, the UN, the EU, the International Labor Organization and the Council of Europe. A 2000 European Commission memorandum contains important recommendations for the development of non-formal education. Taking into account the development of the need of young people for lifelong learning, the knowledge, skills and abilities acquired in the system of non-formal education are becoming relevant and recognized, which takes learning beyond the clear boundaries of the institutional space, expands the opportunities for obtaining education at any time (regardless of age). Such education involves both more diverse forms and unfixed time limits for its acquisition. The article defines non-formal education at the university and formulates its functions in modern conditions. Theoretical approaches to non-formal education (activity-based, humanistic) are analyzed and their essence is revealed. Types, functions, methods and principles of non-formal education are considered. As a result of the analysis of scientific sources the most important principles of non-formal education are described. The article states that non-formal education can complement and strengthen formal education, remaining an important element that needs the necessary attention, study, implementation and use in the modern world.

Key words: non-formal education, "lifelong education", educational environment, activity approach, educational institution.

Неформальна освіта джерелом поповнення необхідних знань та формою адаптації до

сучасних інтеграційних процесів, так як є більш вмотивованою та усвідомленою, відкриваючи нові можливості для самореалізації особистості. Якщо звернутись до історичного чинника, то установи неформальної освіти тривалий час не визнавали формальними навчальними закладами, але на сучасному етапі розвитку демократичної, громадянської освіти потреба в неформальній освіті помітно зростає. Як свідчить аналіз наукових досліджень з цього питання, розвиток неформальної освіти є важливим, закономірним чинником розвитку демократичних процесів у галузі освіти. Її актуальність засвідчують нормативні документи міжнародних організацій: ЮНЕСКО, Європейського Союзу, ООН, ЄС, Міжнародної організації праці, РЄ. Меморандум Європейської Комісії 2000 року охоплює важливі рекомендації щодо розвитку неформальної освіти. Зважаючи на розвиток потреби молоді у навчанні впродовж усього життя, актуальними й визнаними стають знання, уміння й навички, здобуті у системі неформальної освіти, що виводить навчання за чіткі межі інституційного простору, розширює можливості здобуття освіти у будь-який час (незалежно від віку). Така освіта передбачає як більш різноманітні форми, так і нефіксовані тимчасові межі її здобуття. У статті дано визначення неформальної освіти у вузі та сформульовано її функції в сучасних умовах. Проаналізовано теоретичні підходи до неформальної освіти (діяльнісний, гуманістичний) та розкрито їхню суть. Розглянуто види, функції, методи та принципи неформальної освіти. В результаті проведеного аналізу наукових джерел, виділено найбільш важливі принципи неформальної освіти. У статті зазначено, що неформальна освіта може доповнювати й укріплювати формальну освіту, залишаючись важливим елементом, що потребує необхідної уваги, вивчення, впровадження та використання у сучасному світі.

Ключові слова: неформальна освіта, «освіта через все життя», освітнє середовище, діяльнісний підхід, освітній заклад.

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Formulation of the problem in general. The goal of educational policy is to create conditions allowing continuous learning, obtaining general and professional knowledge and implementing an individual educational strategy. Therefore, at the current stage, more and more attention is paid to the development of the sphere of non-formal education. Non-formal education in Ukraine in the conditions of modern democratic processes is gaining popularity as an innovative component of the educational environment which requires appropriate theoretical justification and scientific and methodological support.

Analysis of recent research. At present non-formal education in most developed countries is

an important socio-political task. In the works of V.D. Davydova, the development of non-formal education in Denmark, Sweden, and Norway was investigated [1]. The experience of non-formal education in the countries of the European Union is described in the works of O.L. Samodumska and O.A. Samoilenko [4]. The issue of non-formal education in Ukraine is investigated by Yu.I. Derkach [2] and Yakubenko V. and Berling R. [5]. Their works explore the issue of adult education. However, non-formal education among students has not been studied in detail. The problem of non-formal education as a component of continuous learning is highlighted in scientific works of Candy, P. [6], Kamis, M. and Muhamad, M. [7],

Malcolm, J., Hodkinson, P., Colley, H. [8], O. Ngaka, Willy, George Openjuru and Robert E. Mazur [9].

Highlighting previously unresolved parts of the overall problem. The modern system of generation and transferring knowledge has undergone drastic changes, besides, its volume has increased significantly. Studying at a university for 5–6 years provides sufficient preparation for lifelong professional activity no longer. Researchers from the USA claim that in many professions the knowledge of a specialist becomes obsolete and decreases by 50% within less than 5 years due to the emergence of new information. Therefore, the need to update knowledge arises for our educational system before the end of the study period [2].

The purpose of the article. In accordance with the posed problem and based on the analysis of the theoretical base, we have determined the goals of the article: to characterize the pedagogical content of informal education and to define informal education and determine its functions in modern conditions; to analyze theoretical approaches to non-formal education (active, humanistic); consider the types, functions, methods and principles of non-formal education; to outline the most important principles of non-formal education.

Presenting main material. Successful completion of a non-formal education program provides access to a higher level of education where such qualifications are appropriately validated within the formal education system and is an important component of the lifelong learning concept, enabling young people and adults to acquire knowledge, skills and abilities, develop attitudes and adapt to constant changes in the social environment [2, p. 17].

Thus, it must be underlined that if formal education is defined clearly enough, no complete agreement has been reached regarding non-formal education. The analysis of modern scientific sources proves that there is no ambiguous interpretation of the term “informal education” in pedagogical science.

Non-formal education is considered as:

- firstly, as any educational activity during working or non-working hours among the professionals, friends, family, which is not structured, organized or planned;
- secondly, how the educational process, which corresponds to the structure of this activity, acquires an organized form, does not belong to the state programs of compulsory education and is determined by commitment [2, p. 18].

Formal education in Europe was considered to be constant, traditional and generally accepted for a long time, which has become widely spread in Ukraine. In contrast to formal, non-formal education refers to all educational programs implemented outside the formal education system, usually voluntary and short-term. These programs, unlike formal education, do

not require prior training. The training process is provided by instructors. The specified form of education does not always provide for the issuance of certificates justifying the level of qualifications obtained after its completion. An important problem is the recognition of qualifications obtained in non-formal education institutions.

At the current stage, new assessment models are being created in Ukraine that are based on the conditions of validity of acquired knowledge, abilities and skills and their recognition at the state level. Non-formal education does not have programs approved by the state, but could take place under control of a higher educational institution. In other words, it is an independent form of education.

We focus on the fact that informal education takes place in any environment (educational institution, family, etc.); at any age; in individual or group form. The source of non-formal education could be books, newspapers, television, the Internet, museums, schools, institutes, the experience of friends, relatives and one's own experience. Awareness of non-formal education occurs immediately or later. This type of education could be additional or transformative.

Theoretical approaches to non-formal education. If we describe theoretical approaches to non-formal education, then we need to pay attention to activity and humanistic approaches.

The activity approach to education is focused on:

- reorientation of education from the traditional assimilation and memorization of ready-made forms of knowledge to the process of their acquisition and functioning;
- formation of the main types of activities – communication, cognitive and educational activities;
- purposeful formation of basic abilities and skills as mental actions based on their gradual development.

Several characteristics of the student's activity position in the process of obtaining non-formal education could be distinguished:

- sustainable educational motivation; the ability to formulate a goal and determine the conditions for its achievement;
- mastery of actions (subjective and mental), which allow solving the set tasks;
- the ability to self-control and self-assess the results of civic activity.

Therefore, the organization of informal education in the context of activity and humanistic approaches in institutions of higher education involves orientation to the personality of the student, his goals, motives, preferences, which is ensured by the use of appropriate methods and means of education, as well as the creation of the necessary conditions; taking into account individual experience [3, p. 184].

Types, functions, methods and principles of non-formal education. The issues of non-formal

education have become very relevant in many countries for the last twenty years. Such interest is connected with a number of changes that are currently taking place almost all over the world.

We consider the following types of non-formal education:

Professional courses/trainings are trainings and/or seminars for improving qualifications and/or acquiring new skills. As a rule, professional courses are held in short periods and in “safe space” conditions.

Public education prepares the country’s population, especially the youth, to fulfill their role as citizens. At the same time, public education includes informal social institutions (families, communities, libraries, churches, public organizations, trade unions, sports teams, election campaigns, mass media, etc.).

An online course is an Internet course with large-scale interactive participation and open access via the Internet. In addition to traditional course materials such as videos, reading tasks and homework. Such education provides the opportunity to use an interactive user forum that helps creating a community of students, teachers and teaching assistants. It is one of the latest forms of distance learning, which is actively developing in world education.

Professional internship is a training of personnel at the workplace under the supervision of an authorized person after theoretical training or for the purpose of practical mastering a specialty, adaptation to service and management facilities, acquisition of skills for quick orientation in the workplace and other work techniques [9, p. 63].

As it known that informal education in the conditions of social changes performs a set of functions that ensure the integrity of a new type of activity:

- adaptational – understanding and acceptance of new living conditions;
- informational – the ability to find, select, use the necessary information, improve literacy;
- developing – allows mastering new ways of activity [3, p. 184].

The main method of non-formal education is research. A student conducts a multifaceted cognition of the surrounding world, which takes place at different levels: cognitive, practical and sensory.

The creative approach is implemented through various exercises. Therefore, a relevant psychological method is training consisting of various types of exercises, depending on the main goal of the training. According to the level of independence, theoretical, reproductive and variable exercises are distinguished. The organization of various forms of joint educational activities based on communication and interaction is becoming more and more important.

Analysis of situations, group discussions and business games involve active participation in collective discussion of problems, playing various roles, joint analysis and understanding of results.

Joint activity allows not only to exchange certain information, but also to assess one’s strengths and weaknesses more adequately – from the standpoint of others.

The case-study method is also actively practiced in non-formal education. Its cultural basis is the “precedent” or “case” method. A case is a description of a specific situation that has the right to exist in one or another practice. This situation contains a certain problem that needs to be solved. This is a kind of tool which helps to transfer to the classroom a part of real life or a real situation, which needs to be worked on, and a reasoned solution should be offered.

The main idea of the method is that it is proposed to consider a real life situation (recorded in a certain way in the form of a case), which not only reflects the problem in its description, but also actualizes a certain experience and set of knowledge that must be learned when solving this problem. Thus, one of the specific features of the case-study method is that, on the one hand, it is a special type of educational material (a case study and instructions for working with it), and on the other hand, it is a special way of using this method in the educational process.

One of the common tools, both in educational institutions and outside them, is social design, that is, the implementation of voluntary projects aimed at improving the surrounding reality. Training and implementation of own projects at the local, interregional and international level are important. Thus, the project can look like a platform for training democratic life guidelines.

However, as we have already noted above, non-formal education is not a space for educational activity that is not limited by any framework. Therefore, it is based on certain principles. The most important concepts of non-formal education are:

“Learning by doing” – this concept means acquiring various abilities and skills within practical activity. Thus, within the terms of non-formal education and various types of training, we primarily deal with practical exercises (for example, with work in groups or with role-playing games), which are then jointly analyzed and brought to the theoretical level.

“Learn to interact” – this concept involves gaining practical knowledge about the differences existing among people, learning to work in a team and encouraging cooperation with others. Thus, considering a part of the training classes based on the principles of non-formal education, we pay special attention to working in small groups and to the high-quality development and clear implementation of the rules of working in a group within training. It is important to remember that people learn most effectively from each other and in groups; individual training is often a form of training directed against human nature and is often less effective and efficient.

“Learn to learn” – this principle involves acquiring the skills of searching for information and processing it, analyzing one’s own experience and identifying individual educational goals, as well as the ability to apply all of the above in various life situations [1, p. 161].

We would like to point out the peculiarities of using non-formal education as an innovative component in a technical university, taking into account the fact that the students of NTUU “Igor Sikorsky Kyiv Polytechnical Institute” have been studying in a mixed format since 2021 due to the pandemic and later because of the war in Ukraine. University teachers widely use the platform Prometheus, Moodle, Sykorsky, etc., where students, who do not have the opportunity to attend all classes online, are offered to complete online courses to cover missed classes partially or fully. The practice of crediting the results of international language exams is also widely used (if we mean learning a foreign language). Therefore, non-formal education is partially present in the process of learning at a technical university as a part of educational programs.

Conclusions. We featured pedagogical content of non-formal education. It was determined that non-formal education is an educational activity determined by educational needs, aspirations of young people to master the necessary knowledge or skills which takes place outside the programs of educational institutions. It refers to all educational programs implemented outside the formal education system, usually voluntary and short-term. In conditions of social changes, it performs a set of functions (adaptational, informational and developmental) that ensure the integrity of a new type of activity. Thus, non-formal education has its own methodology of influence on the individual and singles out certain principles of work that allow to achieve a positive result of a certain activity.

The paper analyzes theoretical approaches to non-formal education (activity-based, humanistic). These approaches at the university provide orientation to the student’s personality, his goals, motives, preferences, which is ensured by the use of appropriate methods and means of learning, as well as the creation of the necessary conditions; taking into account individual experience. The construction of education based on humanistic and activity approaches should take place on the basis of taking into account the individual and psychological characteristics of students; their independence in learning, which is realized in the determination of the goals and objectives of the informal education course by the students themselves, their choice of learning methods; active, creative nature of tasks aimed at the development of self-regulation, self-control, self-assessment by students of the results of their activities.

Thus, we can say that in the modern educational space there are three models of education: formal, informal and non-formal education. Non-formal education includes: training programs, courses, seminars, circles, lectures organized and conducted outside the traditional education system. At the same time, the results of training are not always confirmed by relevant documents. From the point of view of the prospects for the development of non-formal education, it is possible to outline the task of further integration into the curricula of formal education of this type of education as an innovative component of training in a technical university.

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