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PECULARITIES OF EVALUATING METHODOLOGY OF LEARNING AND EDUCATION OF ADULTS

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Summary. Adult learning and education can be seen as the fourth pillar of lifelong learning – alongside school education, professional training and higher education. Adult learning and education falls under the general forms of education: formal, non-formal and informal, being predominantly of a non-formal and informal nature. This system allows any adult to develop personal and professional skills, thus becoming an active member of society.

The methodological framework for adult learning and education in this system is a main component, but the establishment of a mechanism for evaluating its theoretical and procedural approaches is an indisputable condition for ensuring the quality of learning and formal and non-formal education of adults. The proposed concept is based on two dimensions: the evaluation of methodology of learning and education of adults as a science and part of andragogy and the evaluation of methodology of learning and education of adults as a set of strategies and didactic methods aimed at the formation in adults of certain competences, determined by their needs. A mechanism for evaluating the respective methodology in both dimensions is also proposed.

Keywords: andragogy, didactic methodology, adult didactics, adult learning, formal education, non-formal education.

PARTICULARITĂȚILE EVALUĂRII METODOLOGIEI DE ÎNVĂȚARE ȘI EDUCAȚIE A ADULȚILOR

Rezumat. Învățarea și educația adulților poate fi privită ca al patrulea pilon al învățării pe tot parcursul vieții – alături de educația din școală, formarea profesională și învățământul superior. Învățarea și educația adulților se încadrează în formele generale de educație: formală, nonformală și informală fiind preponderent de natura nonformală și informală. Acest sistem oferă oricărui adult să dezvolte abilitățile persoanele și profesionale, astfel să devină un membru activ al societății.

Cadrul metodologic de învățare și educație a adulților în acest sistem reprezintă o componentă principală, iar stabilirea unui mecanism de evaluare a demersurilor teoretice și procesuale ale acestuia reprezintă o condiție incontestabilă a asigurării calității învățării și educației formale și nonformale a adulților. Conceptul propus are la bază două dimensiuni: evaluarea metodologiei de învățare și educație a adulților ca știință și parte a andragogiei și evaluarea metodologiei de învățare și educație a adulților ca un ansamblu de strategii și metode didactice orientate la formarea unor competențe la adulți, determinate de nevoile acestora. Este propus și un mecanism de evaluare a metodologiei respective în cadrul ambelor dimensiuni. Cuvinte-cheie: andragogie, metodologie didactică, didactica adulților, învățarea adulților, educație formală, educație nonformală.

Introduction

The theory and practice of evaluation in education and, particularly, in the formal and non-formal education of adults integrates a wide variety of ways of approaching and

understanding the meanings of evaluative actions, which arise from the need to know the state of phenomenon at a given moment, the state of applied instrumentation in carrying out the activity, the state of activity itself, the effects produced, as well as the need to improve them. The evaluation in education is imposed starting from numerous reasonings, arising, on the one hand, from the interdependence of education with social, economic, cultural development, and on the other hand, from the internal requirements of the system. In the context of these perspectives, the evaluation in education in general and in adult education can be the following:

- means by which the education system is put in relation to other subsystems of society: social structures, labor market, etc. Namely these two aspects largely determine the guidelines and mechanisms for evaluating adult learning and education, including the non-formal one;
- means of control (self-assessment) aimed at achieving appropriate relationships between the components of system, fulfilling a pedagogic/andragogic function: competences contents processes means outcomes...

In correlation with the social, economic and cultural function, but also with the pedagogical/andragogical one, the evaluation in education, including adult education, has several dimensions.

Social Dimension. Two approaches are distinguished: with different recipients and ways of achievement:

- a) The evaluation is intended to provide the factors that manage the learning and education of adults with information regarding the amount of input elements (conditions, resources), if they are commensurate with the proposed objectives and the way in which they are used.
- b) At the same time, the evaluation aims to relate the system of learning and formal and non-formal education of adults with socioeconomic needs, to ensure that the mission of adult education system, regarding the training of human resources, corresponds to social, professional requirements and individual aspirations [6].

Pedagogical Dimension. The evaluative approaches are carried out as component actions of the educational activity and serve the system itself. They correlate with several situations, corresponding to their recipients: the teacher - as a trainer and organizer of the activity, to whom the evaluation provides information related to the efficiency of didactic efforts; the trainee, to whom the evaluation gives the opportunity to know the level of performance obtained in relation to those expected by himself/herself) and researchers, methodologists, to whom the evaluation provides information on the functionality of methodological and curricular framework.

Managerial Dimension. Evaluative processes demonstrate their necessity in the activity of organizing adult learning and education.

Whatever is the field to which it refers and the level at which it is achieved, they provide information on the state of education system on the basis of which decisions are adopted for its regulation. Leadership often involves a choice between possible alternatives, which entails a decision process [1].

Dimension of Didactic/Andragogic Process. The need for evaluation is also imposed from the perspective of perfecting the didactic/andragogic activity. It is not limited to ascertaining and appreciating the results, but belongs to the regulation, improvement of the didactic/ andragogic action. Through its involvement in the plan of knowing the trainees, stimulating the learning capacity, as well as through the diagnosis performed on the outcomes obtained, as well as the activity that produced them, the evaluation fulfils a training and stimulating role in the learning and education activity.

The theory and practice of effective evaluation of the adult education system, including the non-formal one, operates a methodological distinction between the measurement actions and the assessment actions designed and carried out at the system and process level.

The evaluation of (sub)system of formal and non-formal education of adults aims at the degree of achievement of macrostructural goals within certain space and time limits, which allow:

- measuring and assessing some aspects focused on the relationships between adult learning and education and the demands of the labor market;
- correlation of the quality of learning and education of adults with their contribution to social and professional development;
- analysis of adult education management at central and institutional level.

The evaluation of adult learning and education process pursues the following:

- degree of achieving microstructural objectives, complex action determined by macrostructural outcomes (key competences of Council of Europe, sustainable development key competences, general competences in fields of learning and education of adults);
- interconnections between the elements of adult learning and education activity: objectives, contents, methodologies, outcomes, means [3, p.175];
- functionality of the adult learning and education methodology.

Therefore, evaluation can be defined as an interpretation by the evaluator of a complex and changing reality, a punctual interpretation, which seeks to clarify a possible becoming. Evaluation means configuring a set of information with a system of criteria in order to make a new decision. It should be noted that in the formal and non-formal learning and education of adults, an effective evaluation system has not yet been established, including the methodology applied in this process.

The concept and mechanisms of evaluating methodology for adult learning and education (andragogic methodology)

Traditionally, it is considered that the object of methodology is the methodical training system, which includes objectives, contents, methods, forms and means of organizing the educational process. In education sciences, the notion of "didactic methodology" is applied in two senses: in the *narrow sense*, methodology represents the set of methods and procedures used in the educational process; in a *broad sense* - as a science about the legitimacy of educational process, in the given case it is about "Adult Didactics" as a component of Andragogy.

The respective approach to the methodology of learning and education of adults mostly generates the guidelines for foundation of a concept of expertise and its evaluation (methodology).

The evaluation of andragogic methodology as a science of adult education is up to experts in the field, who usually present themselves at various scientific forums or when presenting a fundamental work with reference to the andragogic methodology.

The evaluation of the adult learning and education methodology by experts (through the expertise method) is a static one, in the sense that it evaluates the edited fundamental works: monographs, academic manuals, scientific treatises. As there is no single theoretical approach to adult learning and evaluation methodology, there is also no single system of indicators and assessment tools. Moreover, the andragogic methodology at the current stage is under development, on the one hand, and on the other hand, there is a big difference in the approach to methodology of learning and non-formal and formal education of adults, including fields and profiles and organizational forms of education. At the same time, regardless of this diversity of approaches to methodology of adult learning and education, a generic concept of its evaluation can be proposed, which consists of three key elements: dimension, indicators and evaluation methods (Table 1). The results of this type of didactic methodology evaluation are important from several points of view:

- 1. they will constitute scientific foundations in the development and application of the methodology in relation to the form of education's organization, fields of activity and the personal needs of adults;
- 2. they will contribute to the development of theory of learning and formal and non-formal education of adults;
- 3. they will open new research perspectives on the issue of adult learning and education.

The concept of evaluating the methodology of learning and education of adults as an education science and as part of Andragogy also becomes a reference framework for the evaluation of methodology of learning and education of adults as a chain/combination of different methods and procedures (applicative/procedural framework) in order to achieve the intended outcomes.

And in this case, there is no unified methodology of adult learning and education. Each time it identifies itself in relation to several criteria:

- formal/non-formal learning and education;
- forms of group individual learning;
- forms of ensuring course-seminar-training-laboratory works-projects learning, etc.;
- type of education: lifelong learning, improvement, qualification, requalification;
- place and way of organizing learning: specialized institutions, educational institutions at the workplace, at a distance, face to face, etc.

Table 1. Concept of Evaluating Methodology of Adult Learning and Education

No.	Dimension	Indicator	Evaluation Methods
d/o	Dimension	Indicator	and Techniques
1.	The general concept of	• focuses on the lifelong education	Expertise method
	adult learning and	approach;	
	education.	• focuses on the learner-centered	
		learning;	
		• focuses on the training of	
		competences;	
		• focuses on the learning needs of	
		adults;	
		• focuses on the andragogic principles	
2.	The general framework of	• focuses on the principles of adult	Expertise method
	adult learning and	learning;	
	education methodology.	• ensures the coherence of	
		methodology components:	
		outcomes; contents; methods; means.	
3.	The andragogic	• the outcomes are formulated in terms	Expertise method
	methodology guides	of competences and taxonomy;	
	trainers/curriculum	• the outcomes are formulated in	
	designers, methodologists	relation to the learning needs of	
	to the establishment and	adults and the needs of labor market;	
	coherent formulation of	• the outcomes are structured	
	the goals of adult	gradually.	
	education.		
4.	The andragogic	• the contents and units of contents are	Expertise method
	methodology guides	current and relevant;	
	trainers, curriculum	• the content units are seen as means	
	designers, methodologists	to achieve the outcomes;	
	to the appropriate	• the content units are coherent with	
	identification of content units and the creation of	competence units and create	
		motivating learning contexts.	
5.	learning contexts.	• the choice and combination of	Expartise method
٥.	The andragogic methodology offers		Expertise method
	memodology offers	didactic methods and strategies is	

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	benchmarks in the choice	carried out in relation to the designed	
	and combination of	outcomes, the learning needs of	
	didactic methods and	adults and the peculiarities of age	
	strategies in relation to the	and training profiles;	
	outcomes and individual	• promoting the application of	
	peculiarities of adults.	active/interactive teaching methods.	
6.	The andragogic	• the evaluation methods ensure the	Expertise method
	methodology provides	objectivity and motivation of adults	
	benchmarks in the choice	for learning;	
	of methods for evaluating	• focuses on self-assessment.	
	the adult learning		
	outcomes.		
7.	The andragogic	• the didactic methodology is oriented	Expertise method
	methodology offers	to the organization of learning and	
	suggestions regarding	non-formal education of adults.	
	formal and non-formal		
	learning and education of		
	adults.		
8.	The andragogic	• the emphasis is placed on self-	Expertise method
	methodology offers	training /self-learning;	
	suggestions for self-	• the forms and ways of	
	training/ autonomous	individualized/autonomous training	
	training of adults.	are proposed.	
9.	The andragogic	• is oriented towards face-to-face	Expertise method
	methodology offers	learning;	
	suggestions for identifying	• is oriented towards online and	
	organizational forms of	distance learning;	
	adult learning and	• is oriented towards mixed learning.	
	education.		

It should be noted that in the framework of learning and formal education of adults, the evaluation of applicability of the andragogic methodology is carried out by different structures: departments, chairs, quality assurance commissions, etc. If necessary, in this process can be involved teachers, trainers, methodologists, independent experts, etc. At the same time, in the framework of learning and non-formal education of adults, the emphasis is on self-assessment, mutual evaluation, etc.

The diversity of adult learning and education forms and methodologies makes the process of establishing indicators and evaluation mechanisms a difficult one. The evaluator will each time adapt/develop the proposed indicators to real adult learning and education contexts. Next, we propose a mechanism and a set of indicators with reference to the evaluation of andragogic methodology applied in some forms of learning and education of adults.

Table 2. Evaluation of Adult Learning and Education Methodology
Within Lifelong Learning of Teachers

No. d/o	Dimension	Indicator	Evaluation Methods and Techniques
1.	The relevance of topic/ theme submitted for the course.	 the topic is significant for the field; the topic is current for adult trainees; the topic was established jointly with adult trainees; the topic offers opportunities for efficient learning. 	The analysis of topic /theme in relation to the respective indicators
2.	The clear and reasonable formulation of the outcomes/ objectives	 the formulation of outcomes was in relation to needs of adult trainees and requirements of labor market; the taxonomic formulation of outcomes; the formulation of outcomes in terms of competences. 	The comparison of designed outcomes with the results obtained in the learning process.
3.	The content units were rigorously structured	 the content units express the essence of topic/ theme to be studied; the content units ensure the gradual training of designed competences. 	The analysis relevant to the content units
4.	The didactic strategies and methods were used efficiently	 the content units include basic and relevant information; the content units are applied as learning means. 	
5.	The didactic support was varied and in accordance with the designed matter	 the trainer has curricula, methodological guide, other didactic materials; the didactic supports ensure the organization of educational process; there is coherence and interconnection between didactic support components 	The analysis of curriculum products
6.	The trainer motivated and encouraged the activities of adults	 the trainer explained the essence of course outcomes; the trainer described training values of learning the topic; the trainer focused on organizing active learning; the trainer focused on positive assessments of adult learning outcomes. 	Observation method

7.	The trainer based on the previous needs and requirements of adults	 the trainer identified needs and reasons for learning of each adult; the trainer valorized past learning experiences. 	Observation method
8.	The trainer oriented the adults towards individual and team learning	 the trainer organized group learning activities; the trainer organized learning actions individually; the trainer organized learning activities in teams. 	Observation method
9.	The trainer oriented the adults towards problem solving and developing critical thinking	• the didactic tasks were focused on problem solving and developing critical thinking.	Expertise method Observation method
10.	The way of achieving reflection and reverse connection	 the trainer promoted activities of self-assessment of own activity; the trainer guided trainees towards reducing errors in answers. 	Observation method

Based on the presented indicators, the evaluators can structure the respective questionnaires using different qualifications as assessment tools: very good, good, satisfactory, poor, very poor (or other variants).

The methods of evaluating curriculum products for learning and education of adults as components of andragogic methodology

The curriculum being a component of the methodology of adult learning and education, but also a document that regulates the entire educational process, is developed and evaluated in relation to several tools and indicators. In the given case we refer to the curriculum evaluation methods as the adult learning and education program. In this regard, several effective and specific methods are consulted, which are usually applied by experts in the respective field.

• Method of Evaluation Through Expertise

The method includes a number of techniques and procedures: individual expertise, morphological expertise, rating method, expert's council method, etc. The evaluation method through expertise focuses on the heuristic ability of the expert: knowledge, skills, experiences [2].

• Method of Association Matrix

The association matrix is a method of qualitative analysis, based on highlighting the quality of relationships between two components of the curriculum through a table (matrix) with two entries, using association indices that describe the degree of relevance between the two components and the qualitative experience of the relationships between the

respective competences: competence units – content units; competence units – learning activities; content units – learning activities. The association indexes can be "strong", "weak", "absent".

As a result of completing the association matrix, conclusions will be drawn regarding the elimination of "weak" associates [2].

• Method of Concepts Development Matrix

The method involves the presentation/ training and gradual assessment of competences from one learning stage to another. This method ensures the horizontal and vertical coherence of the competence system, but also their qualitative formulation.

• Qualimetric Method

The qualimetric method allows obtaining answers to evaluative questions with quantitative character. To obtain the respective answers, the experts will perform the necessary measurements: they will calculate the respective number of objectives, concepts, content units, etc., then they will obtain the required reports or the respective percentages. Depending on the results obtained, conclusions and recommendations will be formulated regarding the optimization of the designed curriculum. To make the application of qualimetric method more efficient, statistical representations of the obtained data will be used: tables, graphs, diagrams, histograms, etc. [2, p.138].

• Method of Taxonomic Quantification of Competence Units or Operational Objectives
This method is applied in the evaluation of course's quality (study program), didactic
design of different adult learning and education activities and ensures the coherence
between the competences/units of competences and the taxonomy of competences applied
in this sense.

Conclusions

Evaluation is a necessary component of the development and functioning of any system and confirms its level of efficiency, including the system of formal and non-formal learning and education of adults.

It is found that in the theory and practice of adult learning and education, the problem of evaluating the methodological framework in this case remains a current and less addressed and realized one.

The concept of evaluating the methodology applied in learning and education of adults proposed by us is an innovative one, andragogically grounded with great openings for practical application. The proposed tools and indicators can be developed and adapted for both formal and non-formal education. At the same time, the concept of evaluation of methodology of adult learning and education can be used as a basis for the preparation/training of experts-andragogues.

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