The optimization of the continuous training of didactic staff in the pre-academic education

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Abstract

The optimization of the instructive-forming process was and generally, it still is the main preoccupation of the educational system and especially of the continuous training system. The optimization of the instructive-educational activities in the framework of the improvement programs supposes to chose the best variant of organising the instructive-educational activities, claiming the introduction of novelty elements in order to obtain the maximal efficiency of training. The purpose of study is represented by the optimization of activity in the framework of the courses for the improvement of didactic staff in the pre-academic education. Having in view the achievement of the proposed purpose, we have chosen the dynamics of a development experiment.

Keywords: interactivity, socio-cognitive conflict, continuous training, adult education

Introduction

The optimization of the instructional-formative process was and still is the main preoccupation of the educational system in general and especially of the continuous formation system. The optimization of the instructive-educational activities in the framework of improvement programs supposes to choose the best variant of organising the instructional-educational activity demanding the introduction of novelty elements in order to obtain the maximum efficiency of formation.

The continuous formation of didactic staff tries to meet the requirements of modern education, imposed by the evolution of the contemporary society which together with the knowledge desire, the desire to permanently learn new things, they all impose the improvement and the continuous formation of didactic staff. This necessity of the didactic staff’s improvement is predicted in the “The statute of the didactic staff in the pre-university educational system. Initial and continuous formation. Didactic career” in National Education Law (2010)

Without denying the importance of theoretical knowledge which “become human behaviours, due to which we obtain spiritual and material goods”, we render Anton Ilica’s opinion who seizing the difficulties of “emotional adaptation (changes of behaviour and attitude)”, states that: “the decision-makers can endow the schools with computers, with didactic technology, they can propose reforming programs and corresponding subjects, but, without

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the attitudinal engagement of didactic staff, all these wear out in an office with bars and two, three locks” (2009, pp. 377-378).

1. The continuous formation of didactic staff in the specific context of adults’ education

The saying “as long as he lives, the man learns” seems to be more and more actual and necessary, each person being put in the situation to permanently educate not only with the aim of up-dating the professional competences but also to be instrumented to face the economic, political, social, cultural, informational solicitations and changes. The didactic staff is no exception, the continuous study especially representing one of the essential dimensions of didactic profession. The necessity of life long learning, associated with the prolongation of learning beyond the childhood and adolescence which determines bringing in discussion the specific of learning for adults.

The learning process for adults is conditioned in its development by the psychological characteristics of adults (Dumitru, 2007, p. 110-112): the attitude towards learning and education (the result of some complex psycho-social mechanisms which put their imprint on the learning conception, on the role and importance of learning in their lives); the appropriate well-defined pragmatic aims (the adults are prevailingly focused on learning as problem solving, proving themselves to be realistic and oriented towards the achievement of some practical objectives); the development of their own knowledge and their own life experience (which can constitute an important resource for the achievement of learning and for the adults’ continuous formation, although these ones often have the feeling and the belief of their self-efficiency, of the fact that they know enough and they have no more things (and why) to learn); the external and internal constraints which determine the adults’ long life learning (the availability and openness towards the continuous learning are more and more pregnant characteristics of the contemporary man, simultaneously with the desire of obtaining/maintaining a self image and appropriate esteem, the desire of self-achievement and of obtaining a high social prestige etc); the adults’ self image which is well delineated and consolidated (these self-defining themselves as autonomous, independent and responsible persons which freely and independently decide if they engage themselves in formation programs, the moment they should do it and the aim of it).

For adults, learning is a problem of restructure determined by the following major variable: the characteristics of the adult trainee, the learning process and the context of the education (Paloş, 2007, p.41).

2. Interactive learning based on collaboration and cooperation

The organisation of the continuous process formation demands the necessity of essential changes regarding the didactic strategy. The preparation phases do not strictly put an accent on the knowledge acquisition or on the transmission of theoretical information, but they follow self-formation on the basis of people’s and of the group’s experience. In this context, the interactive learning based on collaboration and cooperation proves its efficiency.

One of the fundamental characteristics of education and adults’ learning is its interactionist character. As professor Ioan Cerghit states “it is in the human nature (and moreover in today’s generations) the inner need to maintain an exchange of information and ideas, of impressions and opinions, to externalize in the communication with other people, which constitutes a good opportunity of establishing some socio-affective relations of reciprocal understanding and cooperation” (2006, p. 138).

The term interactivity is used in order to designate the superior unity of a conversation analysis, the assembly of exchanges achieved by the participants in a certain context. Generally, the concept of interaction designates the individuals’ reciprocal action (Gadrey, 1998, p. 96).

The interactivity and interaction are two terms often used in the scientific literature, in the educational sciences, computer science, technologic education, long distance education, curriculum and instruction, psychology. Very often the terms are used in a synonymous relation. However, the study achieved by Kahveci on a sample of 262 didactic staff in different universities, regarding the functional definitions of interactivity, revealed the existence of two components: component 1 – interaction and a component 2 – interactivity (Kahveci, 2007, p. 163, on line).

A banal fact at first sight (each participant stimulates the other and answers to him/her), the communication, the dialogue engages a real interactional complex. Although for a long time the interaction was treated as a phenomenon
exclusively connected to large groups and social phenomena, clearing one’s mind of the individual input of a person, the interaction must be regarded as a function of the individuals’ participation in the group’s life (Rotaru, 2008, p. 157).

3. Interactive learning based on the socio-cognitive conflict

Interaction learning and the confrontation supposes “replacing the simple, bipolar approach (Subject-Object) with a triple approach (Subject-Other-Object)” - (Neculau, 1998, p. 53). The development of intelligence does not happen by a simple action ego-object, but it also includes the field of action, the educational situation, the psycho-social context of formative institution, the formative demarche is achieved in an interactional field (Cornelius, Faire, apud Momanu, 1998, p. 223).

Learning has as basis the interaction of individual cognitive and social processes. The mechanisms involved are: a) the socio-cognitive conflict and b) the knowledge construction. “In their cognitive side, the conflicts can appear between ideas, opinions, conclusions, theories and different information, which determines the participants to have contradictory confrontation, which force them to search for solutions, to surpass together the divergences, to reach together the end of their socio-cognitive conflict, to build together some new knowledge, some solutions, at the development, to fathom and enrich the structures available for them. And in their social side, the conflicts favours the interactive role and situations play which develops the heuristic valences of fantasy, the participation in meaning production, explorative, interpretative cooperation and that of exploitation of events and actual reality facts” (Cerghit, 2008, p. 181). The partners do not enter a conflict situation regarding the way in which a cognitive situation must be found, but regarding the best socio-cognitive model, regarding different possible ways of solving the problems by cognitive interactions” (Neculau, 1998, p. 53).

Learning and experience can be also obtained by the confrontation of points of view, the divergences of opinions and solutions regarding a certain problem, the exchange of information, ideas, beliefs (specific to the socio-cognitive conflict) can be revealed only in social interaction situations.

Based on the idea according to which the socio-cognitive conflict represents a necessary condition of the cognitive progress, Crenguţa Oprea identifies the reasons due to which the socio-cognitive conflict (defined by the eclecticism of the answers provided by the participants), can determine a cognitive development (2008, pp. 81-82):

✓ renunciation to egocentrism (ignoring the others’ points of view);
✓ the elaboration of cognitive instruments by offering solutions to problems;
✓ the enhancement of the cognitive activism.

Trying to determine the social conditions generating cognitive progress, W. Doise and G. Mugny have created interaction situations necessary to the integration in a complex structure of organization schemes already present in the individual, highlighting the cognitive performances net superior in conflict interaction conditions with other discourses or actions (Doise and Mugny, 1978, on line).

4. Research study

We have proposed in the practical component of the present paper, the attempt to optimize the activity in the framework of these improvement programs. The didactic staff solicits more and more the achievement of some stages of formation applied to the object which should highlight the solving of problems appeared in the didactic and extra-didactic activity. The trainees in the formation analyse and solve real or hypothetical problem-situations with subjects from the school life. From this point of view we have considered as necessary the use of the interactive learning based on the socio-cognitive conflict.

We start the achieved research from the hypothesis according to which the implementation of an interactive program of continuous formation (based on socio-cognitive conflicts) will lead to the optimization of the teaching-learning activity in the framework of the improvement programs of didactic staff in the pre-university education system.

Investigating the activity in the framework of the improvement programs has required the use of a set of methods of data acquisition, processing and presentation which are presented in Table 1:
Having in view the proposed purpose, we have chosen *an experimental plan of pre-test/post-test type with equivalent groups*. The participants in the experiment were selected from the total of 512 didactic staff who participated in the study. Thus, 256 participants were included in the control sample and 256 persons in the experimental sample. Ensuring the equivalence between the control and experimental group was achieved by the use of the criteria constituted by age and length of service.

In order to reach an aim, we will use the positive and constructive aspects of generating the socio-cognitive conflict in the framework of improvement programs for didactic staff in the pre-university educational system. We will highlight the modifications due to the use of interactive methods based on the socio-cognitive conflict in the didactic activity associated with improvement, highlighting the behavioural-attitudinal, practical-applicative and interactional progress obtained by the participants in the program of interactive continuous formation for didactic staff.

For illustration, we present below the statistical data:

### Table 2. The modifications due to the use of interactive methods

<table>
<thead>
<tr>
<th>Gc pre-test</th>
<th>Cognitive acquisitions</th>
<th>Attitudinal-behavioural modifications</th>
<th>Practical applicative competences</th>
<th>Interrelational progresses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gc post-test</td>
<td>3,47</td>
<td>3,57</td>
<td>1,80</td>
<td>4,20</td>
</tr>
<tr>
<td>Gc pre-test</td>
<td>3,8</td>
<td>3,43</td>
<td>1,92</td>
<td>4,38</td>
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<tbody>
<tr>
<td>Gc pre-test</td>
<td>-9,946</td>
<td>-9,346</td>
<td>-8,430</td>
<td>-2,384</td>
</tr>
<tr>
<td>Gc post-test</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.017</td>
</tr>
<tr>
<td>0,892 - strong connection</td>
<td>0,957 - determinist connection</td>
<td>0,971 - determinist connection</td>
<td>0,996 - determinist connection</td>
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**Conclusions:**

- pre-test: there not are significant differences between experimental and control sample;
- post-test: there are significant differences for all the indicators: cognitive acquisitions, attitudinal-behavioural modifications, practical applicative competences and interrelational progresses;
- the values presented above lead to the conclusion of a successful intervention which is also confirmed by the correlational connections of the post-test phase between the variables of the undertaken experiment.
The cognitive acquisitions, attitudinal-behavioural modifications, practical applicative competences and interrelational progresses are significantly positive for the trainees/students who participated in the activities in which they used interactive methods. We appreciate that this effect is the result of the application of some interactive methods of teaching-learning in the framework of the intervention. These, besides being more efficient than the traditional ones, have a more attractive character for the student/trainee, which determines an increased interest regarding the improvement.

The implementation of an interactive program of continuous training will lead to the optimization of the teaching-learning activity in the framework of the programs for the improvement of didactic staff in the pre-academic educational system.

References

** (2010), National Education Law - april 2010