

## **Characteristics of Application of General Didactic Principles to the Specificity of Tactical, Operational and Strategic Military Higher Education**

COTÎRLEȚ Paul-Claudiu  
Bucharest University, Romania  
E-mail: cotirlet\_claudiu@yahoo.com

Received 28.02.2015; Accepted 08.03. 2015

### **Abstract**

*The paper entitled "Characteristics of Application of General Didactic Principles to the Specificity of Tactical, Operational and Strategic Military Higher Education" wants to develop the educational and instructive character of all teaching activities, and to ensure the achievement of objectives provided in the military education programmes. It covers three sections and four subchapters, all of them dealing with notions, principles, rules and examples that will help with the methodical preparation of young teachers. If studied and applied in a creative way, the thesis will provide a scientific background and it will ease the work done by both the teachers and the student-officers. Also, this paper tries to answer to a desire regarding tactical, strategic and operative education that concerns the synthesizing, systematization and generalization of the positive experience coming from teachers and teaching committees. Seeing as this is a first attempt to present such particularities, I would like to state that the thesis in question is open to changes and improvements, and also I would be grateful for any suggestions or observations from the people that study or use this paper, in order to improve the teaching of such an important and specific learning process.*

**Keywords:** *Military education, information, didactical principles, Tactical, Operational and Strategic Sector*

### **1.Introduction**

As graduate of the National Defence College - series XXII- I have managed to develop my capacity of analysis and synthesis of contemporary political-military phenomena, of military scenarios and actions at an operational and strategic level, and I have drawn practical conclusions necessary to the organisation, planning and deployment of military actions at a tactical and operational level. Therefore, I could submit to your attention, in the most concluding and pertinent way possible, the characteristics of Romanian military education in the context of involvement of general didactic principles. National Defence College aims to provide a modern process of multidisciplinary and multinational education, with a view to assimilating correctly the national and international safety problems. The education process is deployed with the observance of European requirements, in

agreement with the syllabi of similar institutions from abroad and under the conditions in which Romania promotes its interests starting from the current condition of the international system and our status of NATO and EU members (For exemple, you can se Figure 1).



Figure 1

Source: <http://edu-news.ro/rusia-va-reintroduce-cursurile-militare-si-patriotice-in-scoli/>

To ensure a high level of quality of the learning process, the National Defense College invites teachers from abroad to hold classes for the students. The people invited come from prestigious universities from the US, Canada, Great Britain, Germany, Israel or other structures of the EU and NATO, and have been praised for their very well documented and extremely interesting lectures. The National Defense College undergoes its obligations covered in the International Activities and Bilateral Cooperation Plans, and also works on developing ongoing programs, as well as expanding and diversifying its international relations so that it will help raise the level of quality and efficiency regarding the educational process.

## ***2. Higher Military education***

Military education is provided by the State, it is part of the national education system and has its own personality and identity, which is compatible with the educational systems of other NATO states armies. Its objective is to train, specialize and perfect the military personnel required by the Romanian Army and other internal or external beneficiaries. The higher military education institutions available are: the "Carol I" National Defense University, Bucharest; the Technical Military Academy, Bucharest; the "Nicolae Balcescu" Ground Forces Academy, Sibiu; the "Mircea cel Batran" Naval Academy, Constanta; the "Henry Coanda" Aerial Forces Academy, Brasov; and the Medicinal Military Institute, Bucharest.

### ***2.1. Military higher education- understood as a complex process of permanent education promotion***

It presupposes that those who are learning to appropriate in the time and effort unit the necessary amount of knowledge, capabilities and convictions, materialized in behavioural changes, with a view to increasing social efficiency of activity performed and developing human personality. From a practical point of view, it imposes, together with continuous improvement of the content, the radical improvement of teaching and learning methods and forms used. As a result of the fact that the assimilation possibilities of intellect are relatively limited, it is imposed that the methodological orientation of the learning process to the direction of transmitting to those who are learning not necessarily factual, perishable knowledge, but especially laws, principles, norms, rules, etc., combined with the intellectual working technique, composing thus a complex structure which is open to knowledge, adaptable to learning, as well as to settling the tasks incumbent on them after the completion of studies.

For the fulfilment of this desideratum, it is extremely important that one does not aim at accumulating some quantitatively spectacular knowledge, risking to remain non-functional just because of abundance, but at forming and developing the skills related to the study and settling the training and fight action problems; the safe orientation of student-officers and course attendants in the contents of national military doctrine, by the appropriation of a systematic and coherent vision on the formation of general tactical, operational art and strategy, placed in the context of our military history and of the war of the entire people for the defence of the motherland. As a result, the tactical, operational and strategic education, even if it has a strongly integrative character, its purposes representing the development of student-officers' personality, the consolidation of their developed ideas on the world and life, is particularized, compared to any other type of higher education, mainly by the general purpose.

It results that this type of education acquires its specificity just because it uses specific knowledge, operates with specific techniques and technologies, and finally fulfils specific fundamental tasks: training of command service members and of the general staff necessary for our armed forces. But not only this. Within the elaboration of educational documents and within the performance of sequence by sequence learning activities, models of the various forms of fight actions are used, the members of the teaching staff carrying out an activity of elaboration and teaching imposing higher education, didactical experience, creativity, the ability to provide to this type of education its fundamental characteristics: selectivity, realism, design-research and education of student-officers in the spirit of love of their motherland and their country.

On the other hand, the deployment of educational process within Tactical, Operational and Strategic Sector, and its optimization are not designed anymore without making appeal to the knowledge made available by sciences such as: psychology, neurophysiology, mathematics, economics, cybernetics, and sociology. At present, efforts are made worldwide for the optimization and expansion of learning possibilities. These diligences are justified because today, more than ever before, intellectual training and education of the new generations, as well as adult recycling, asserts as one of the decisive key factors of progress.

## **2.2. Learning theories**

Obviously refer to a multitude of issues, on which points of view are formulated, representing modes of action, of influencing the educational process according to some pre-established purposes. There are theories regarding the appropriation of knowledge by memorization or which emphasize the development of an independent thinking; other theories refer to the relation between trainer and trainee, or refer to the “psychological model of learning”. For example, as regards this model, theories are contoured, such as the associationist or the Gestalt ones (German origin word meaning phenomenon, form) or that of creative learning (heuristic).

What is especially interesting related to these theories is the essence, namely finding those action modalities by which the members of the teaching staff manage to form officers who are able to face the fatal or life, society needs. Military higher education must develop the personality of student-officers by the accumulation of information and its systematization, by comprehension and solving problems similar to those occurring on the battlefield. These, all the more so as, no matter how improved and even sophisticated the studies tactical, operational and strategic models are, they cannot reproduce the totality of conditions the present and future modern battlefield features. That is why a creative thinking system must be formed for all student-officers, being characterized by receptivity, flexibility, fluidity and originality. The training of military service members must aim at developing their capacity to act in frequently changing varied circumstances, permanently promoting the novelty.

The well-known pedagogue Alfred Binet asserted that *“intelligence is pluridimensional and it cannot be measured by a single test. The accumulation of knowledge based on memory, for example, does not mean intelligence”*. A lack of memory, noticed Binet, can be associated to a lot of reasoning, as a real fool can also have a good memory [Binet Alfred,2002]. Jean Piaget shows in his turn that: *“...the real integrity of the individual in this world of mutations depends, in a determined extent, on the success of forming some creators, some innovation spirits. The individuals capable only to repeat what they have learnt from the previous generations are irretrievably doomed to failure.”*[Piaget Jean,1973]. Piaget’s assertion is based on the scientific fact that the central nervous system (brain) works as a whole, being prone to integrate, to unify the activity of its various sectors. The new information, to the extent to which it is understood, is subject to a process of systematization, ranking and grouping; it becomes functional, can help to the settlement of problems, only if it is assimilated, integrated by human mind. Being mechanically, individually appropriated, without being understood or understood with great difficulty, the information thus acquired is rapidly lost, does not enrich intellectual sources. It is thus important to know not only “what” is learnt, but also “how” the student-officers are learning, in what why does it engage the intellect, their entire psyche. The conclusions drawn from the various theories on learning are used in defining the didactic principles of learning, after which all instructive actions shall be guided.

## **3. Didactic principles**

*Didactic principles are “methodological categories” and have the mission to be indicative and normative milestones for the correlated action of all sides of the educational process. These principles provide, if they are observed, the efficiency of modelling the person who learns,*

*according to educational purposes. Thus, didactic principles must be observed both in the planning of objectives and structure of knowledge, and as regards the selection of instructive-educational methods and education means.*[Bunescu and Giurgea, 1982]. As it also results from the definition, the principles are setting out the parameters of learning process and need an active participation, full of initiative and creativity both from the members of the teaching staff and from the learner. The principles are indicative prescriptions (Eşi, 2013, 309-314) and this is precisely why, based on them, one can act very freely, both in choosing and applying the instructive-educational action methods and procedures.

In contemporary didactics, the principles of the educational process are systematically treated. All converge toward the same objective. This is why the efficiency of each of them is conditioned by the consideration of the system as a whole; the infringement of some of them minimizes the positive effect of the others. Didactic principles can be grouped according to certain criteria. I shall bring forward the ones I consider they can act in such a specific field of tactical, operational and strategic military higher education.

### ***3.1.Principles with reference to the objectives of instructive process***

#### **A: Integration of education with the training process of troops and with the scientific research**

This principle represents one of the fundamental directions of tactical, operational and strategic military higher education, its application becoming the guarantee of forming some personalities with a large scientific horizon, but also with real creative and investigation skills, able to integrate actively and competently in the educational process, to contribute to social progress. The dominant requirement imposed by this principle consists of the fact that, instead of an activity of assimilation and storage of some already elaborated cognitive models, a pedagogical endeavour must be installed, which can trigger the knowledge “production”, namely a process of search and discovery of truths, of effective practice of knowledge. According to this principle, in the practice of knowledge transmission, there must be achieved conditions such as: presentation of information must be made in an interdisciplinary manner; student-officers be engaged in exercises of integration and discovery of knowledge and of its application at the same time; provision of well-balanced combination of theoretical learning with the practical activity; specific control of social relationships within the group of student-officers (it is about the stimulation of active participation of group members in the process of their own training).

I consider that, within the Tactical, Operational and Strategic Sector, there is the appropriate organisational framework providing the accomplishment of requirements of this principle. However, it is necessary that all the members of the teaching staff intensify their searches so as to find some scientific solutions, for the organization and performance of fight actions under the specific conditions of our country, to deepen the preoccupations of introducing in the educational process, to a greater extent than up to present, the positive expertise from the commandments and units of our army related to the deployment of training and education process. Student-officers should be more attracted into the mixed teams of scientific research, thus offering them the

possibility to appropriate an efficient research methodology, to develop skills and passions. The graduation theses should be immediately related to the troop training process, and should be competently guided so as to find viable solutions that can be exploited in practice (Figure 2).



Figure 2

Source: <http://edu-news.ro/rusia-va-reintroduce-cursurile-militare-si-patriotice-in-scoli/>

### **B: Accessibility principle**

This principle provides that the training be performed so as the integral appropriation of knowledge become possible. Therefore, we have to take into consideration the level of thinking and intellectual training of those to whom knowledge is thought. First of all, it is about the language used by the learner. As the knowledge communicated in a known foreign language is not accessible, the knowledge of mathematics, military technique and doctrine, topography, management automation, etc. does neither become accessible if a specialty terminology is not held. It is not possible that an entire terminology system be introduced all at once. It is necessary that the sense of the words or of any symbols be gradually elucidated, the listener being each time put in front of a restrained number of terms or symbols that are totally or partially unknown. A rule of accessibility consists in the provision of an optimal distance (in the sense of its possible running) between language, volume of knowledge, intellectual abilities of learners, the information content, the logical structure of the things communicated by the members of the teaching staff; in effect, accessibility means didactical communication skill. The accessibility in the learning process does not equal the position exactly at the level of comprehension and intellectual development of student-officers or even below their level. Communication is instructive when it obliges the subjects to be active as regards the

appropriation of knowledge and their interpretation. What is too easy and well-known does not stimulate learning.

A difficulty degree must be permanently preserved in instructive relationships, taking at the same time all the measures so as the student-officers be able to surpass the said difficulties. To conclude, as regards this principle, it is necessary to make clear a rule which imposed itself over years. It is about the rule “from easy to difficult, from known to unknown or from simple to complex”. This rule was regarded in the spirit of an inductivism and narrow empiricism, to a univocal direction. We know the senses of the objective knowledge process as a process of continuous passage from practical to abstract and vice-versa, so that the optics of these rules changes, too. Sometimes, the learner is put in front of an inductive knowledge, but sometimes starts deductively from the problem to decipher its practical sides. In the same way, the rule “from known to unknown” cannot be generalized. It is not always good to do so. There are things which, regardless the effort, cannot be known by the update of some old cognitive connections. The same question mark is raised around the rule “from simple to complex”. One thing can be simple for human knowledge, as a whole, but not simple for adult’s knowledge or, sometimes, a complex problem, if it is based on the knowledge, abilities and skills, thoroughly appropriated by student-officers, can become simple for their knowledge.

### **C: Principle of Provision of active and conscious characteristic of the learning process**

This principle is oriented, within the tactical, operational and strategic education system, against formalism, mechanical and fragmentary reproductions, against superficiality. Basically, it is requested the creation of some conditions so as the listener understand exactly and up to the end the taught and studied information, to distinguish the essential from non-essential, the general from particular and be able to implement his/her knowledge. The learner must be attentive, to notice, to reproduce in writing the things learnt (by his/her own words), to imagine as many versions as possible of treated situations, to reason methodically, reaching to high levels of abstraction and generalization, without remaining the prisoner of some special situations, to be able to materialize his/her general knowledge, to guide him/herself according to them in the practical work.

Learning is conscious when one reaches a perfect correspondence between form and content, in the sense that the trainer does not control only words, action modes, but also the meanings, their signification, being capable to create personal formulations, to extend them on some new situations, to develop them creatively. Learning is not only a purpose in itself, but a means of reaching some life objectives, more or less remote. In this train of ideas, awareness coalesces with the more general principle of unity between theory and practice. Practical experience brings important contributions and suggestions to the comprehension and development of some ideas by reporting with idea of “intuitive didactics” (Eşi, 2014, 87-92 ); a thinker shows that we understand well only the things done by ourselves. In conclusion, any learning considers the practical results.

### **D: Formative principle**

This principle requires that the learning process be not restrained only to the “informing” act, but also to educate, namely to form to the individual those skills, abilities, attitudes necessary to understand, to put and solve problems, to implement the knowledge acquired. Formative principle

requires that we don't lay emphasis on the volume of information stored, but to aim at developing the appropriate operations, knitting together some work systems, allowing the student-officers to activate autonomously and efficiently in a certain field on indefinite period; being trained according to certain requirements, armed with appropriate capabilities and being supported by a strong motivation, the learner passes from training to self-training, providing him/herself a progressive evolution.

### **E: Thoroughness principle**

This principle presupposes the provision of integral appropriation of a certain object of study and especially the most important knowledge; provision of memorization and prompt reproduction of knowledge, thus the development of a systematic and durable experience in the respective field; consolidation of intellectual and practical work habits, education of abilities, and structuring of all these in an assembly of professional mastery. Thoroughness principle presupposes thus the comprehension of the material, its selective and essential interpretation. In this sense, emphasis is laid on repetition as a means of durable memorization and on exercises or training by which habits are acquired, all these taking into consideration the rules of repetition and exercise highlighted by psychology.

### *3.2. Principles with reference to the problems of contents*

#### **F: Principle of inner unity of teaching**

This principle is achieved by the conception of the object of study as a system in which knowledge is rigorously interlinked, allowing their exposure in continuous flow. These cuts that are achieved by lectures, applications, consultations, must be successively correlated and integrated so as learning be achieved not by a sequence of lectures or lectures – discussions, but under the form of a unitary course.

#### **G: Principle of knowledge grading**

In the sense of its distribution in sequences aiming at staggering from lesser to more, represents an unavoidable didactical need. It is known that one cannot assimilate all of a sudden, but knowledge must be appropriated link by link so as to gradually come into possession of a knowledge chain.

#### **H: “Logic of subject” principle**

As regards this principle, question marks are raised. In the field of pedagogy, one speaks of a didactical logic that is different from that of science, which makes some correlations and adopts a sequence that should make the object more accessible; it is possible that such a practise be indicated in compulsory secondary and lower secondary education, where the assimilation of scientific notions is mainly based on practical, simpler things, gradually reaching to theory.

In the military higher education, where the human material has another quality (has a psychological development step in which theoretical thinking is very well represented), the members of the teaching staff must observe science rule during course teaching process.

The third group comprises those principles that act in relation to learning methodology.

Specialty literature formulates eight didactic principles in this sense:

1. Correlation between informative units, corresponding intellectual methods and operations
2. Optimal alternation between practical and abstract
3. Modelling
4. Mutual correlation and control of knowledge
5. Systematization
6. Problematization
7. Motivation
8. Combination between group activities

I shall not further insist on them, but I have to highlight that it is strictly necessary to take into consideration the above mentioned principles within learning activity. Starting from the fact that the principles form a system, it results that they shall not always have the same weight in the deployment of educational process. In relation with the effective moment, the learning strategy is defined, establishing the hierarchy of principles so as to reach some purposes. There are no didactical recipes and they must not be searched. *“In each particular situation, one has to adopt the strategy offering most guarantees for the optimal fulfilment of the proposed objective. This is practically didactical mastery”*. [Popescu-Neveanu, 1971]

#### **4. Conclusions and suggestions:**

Up to here, I have presented the learning principles. It is necessary to integrate them, presenting also some ideas meant to contribute to the development of education efficiency deployed in Tactical, Operational and Strategic Sector, namely to show some education conditions, as follows: Gradual, extensive learning, distributed on longer time intervals is much more efficient than compact, intensive learning, characterized by the agglomeration of a high volume of knowledge on small time units. So as intensive learning become effective, learning cycles must be supported by applicative internships intensively requiring knowledge and habits intensively appropriated. If a vast and difficult learning content is appropriated, it must be practically applied as a whole during the periods immediately following the learning process.

The development of some new capabilities has increased efficiency if they are carried out under the following conditions:

- Acceptance and eagerness to learn from the person that must learn
- The learner must be motivated
- The learner must be oriented toward the learning task by action models
- It is necessary to be used the most appropriate and relevant learning materials
- The learner must be offered the possibility to practice what he/she learns
- Learning methods and information media must be varied, precise, so as to avoid psychic fatigue
- The learner must have a certain satisfaction from the learning process itself ; he/she must be rewarded for the manifestation of the behaviour expected by him/she
- The learner must know from the beginning the level of performances expected from him/her

- Any learner must be convinced that there are various learning levels, each requiring time and different techniques.

Finally, another extremely important condition refers to the person teaching others: to be always an optimal learning and behaviour model and, as he/she is never satisfied by the progress of his/her scientific education and methodological capacity he/she has at a given moment, conforming to the principle according to which, the intellectual (creative human being) is condemned to look for perfection even if he/she does not find it, his/her effort is sublime.

## References

1. Binet, A. (2002). *Psihologia raționamentului*, Bucharest: IRI Publishing House.
2. Bunescu, V. , Giurgea, M.(1982). ”Principii de organizare și desfășurare a procesului de învățământ”. *Didactica*, Bucharest: Didactica si Pedagogica Publishing House.
3. Eși, M. (2014). ”About the Idea of an Intuitive Didactics and the Role of Intuition in the Activity of Teaching and Learning Assesement”. In *International Journal of Social and Educational Innovation*, No.1, 87-92.
4. Eși, M. (2013). ”Simulation And Solving Didactic Activities Through Elearning”. In Conference proceedings of "eLearning and Software for Education" (eLSE) (Conference proceedings of "eLearning and Software for Education" (eLSE)), issue: 01 / 2013, pp.309-314.
5. Istrate, Elena, Risnoveanu Adriana (2005). *Didactica Specialității*, Bucharest: Universitatea Nationale de Aparare Publishing House.
6. Mihalache, Catalina, *Didactica apartenentei.Istorie de uz scolar in Romania secolului XX*, Iasi: Institutul European, Publishing House.
7. Piaget, Jean (with Herivan, M.), ”Piaget sau destinele psihologiei”. In *Meridiane pedagogice*, Bucharest: Didactica și Pedagogica Publishing House, 154-166..
8. Popescu-Neveanu, Paul. (1971). *Bazele pedagogiei militare*, Buchares: Military Publishing House.
9. Website: <http://cnap.unap.ro/invatamant.html> [accesed to 11.01.2015].
10. Website: <http://dmru.mapn.ro/?pag=invatamant> [accesed to 12.01.2015].