

SOME EFFECTIVE METHODS OF TRAINING COMMUNICATIONS AND IT SPECIALISTS FROM MILITARY STRUCTURES

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Abstract: *Service training military specialists in communications and informatics is part of the general system of training and education of the Romanian Armed Forces. Due to the place and the increasingly important role of the communications and information in the command and control of tactical, operational and strategic military structures, decision makers pay special attention to training this category of specialists, so that the technical support provided by them might meet all technical requirements and operational management of any military operation.*

There is a permanent concern to ensure the training principle of compatibility with modern armies of NATO, by choosing similar forms and methods of effective training, ensuring operational training.

In this article we analyzed and proposed the most affordable and effective ways of training in communication and information, with suggestions for institutionalized training.

Keywords: *communication and information, forms and methods of training, institutionalized stages of training, operational training.*

The new military conflicts result in changes in the military art of doctrine, organization, training and equipping. Having a common element, defining technology in its evolution, these changes aim at optimizing the human-technical conditions of the battle space digitization and the fundamental purpose of approximation of victory in a possible conflict.

When continuous improvement, multifunctional and structural different echelons is a reality, when flexibility, maneuverability, high rate of

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action, adaptability and the ability to act met are existing requirements of most structures of modern armed forces when NATO's transformation to meet new challenges of the XXI century is a reality, we believe that the role of training forces is fundamental in optimizing the ratio of the areas of information, structural and act of modern warfare.

With evident determination on all three areas, but abundantly on the action, training and personnel training constitute a priority this period, post-NATO, Romanian Army, purpose and primary objective of changing the vision on training forces, even creating entirely new one, so their efficiency and interoperability of the Romanian Army with the armies of NATO member states will increase significantly.

Considerations on selecting training methods

Applying a logical process for selection tools" is a goal of officers' training process. Selection of the best methods of training is important for all basic requirements of the training system. Thus, we consider that the two basic forms of training for the process as a whole, are:

- the institutionalized type;
- the exercises.

Each of them can be interwoven and complement each other in turn they can be divided into processes and "tools" for leadership training events. After analyzing specific features and interpretative peculiarities of training analyzed in some modern army we appreciate that a combination of effective "tools" training requirements can help training becoming effective and efficient in our army. In Figure 1 we present a hierarchy of training "tools".

Forms	Basic leadership training paths (institutionalized or exercises)
Methods	Different ways in which each form can be performed (text programs, training platforms, training facilities, <i>Computer Based Training - CBT, Command Post Exercises - CPXs & Field Training Exercises - FTXS</i>)
Mediate	"Tools" available to drive or graphics support each procedure or method in hand (writing, video, film, brochure with Essential Task List of Mission - ETLM,

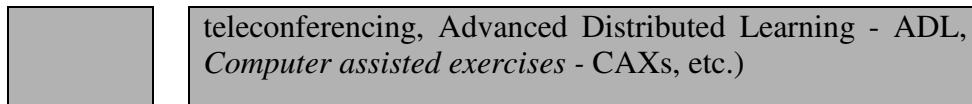


Figure 1. The hierarchy of training forms and methods.

Selecting training methods begins with determining the purpose of the training event. In other words, what does the trainer intend to teach the trainees?

The methodology starts with the identification of training objectives. This can help determine if the method chosen must be an institutionalized one or a training exercise type.

Institutionalized training methods and exercises are different and therefore each of them can support different purposes. Institutionalized methods such as cognitive accumulations are convenient for improving information and knowledge accumulation, for increasing understanding.

The exercises are very convenient to practice, train, verify or validate. In Figure 2 there are some goals of the training stages.

It should be noted that, in our opinion and comparing details of specific training of modern armies, these are situations that can lend institutionalized combinations of methods and exercises.

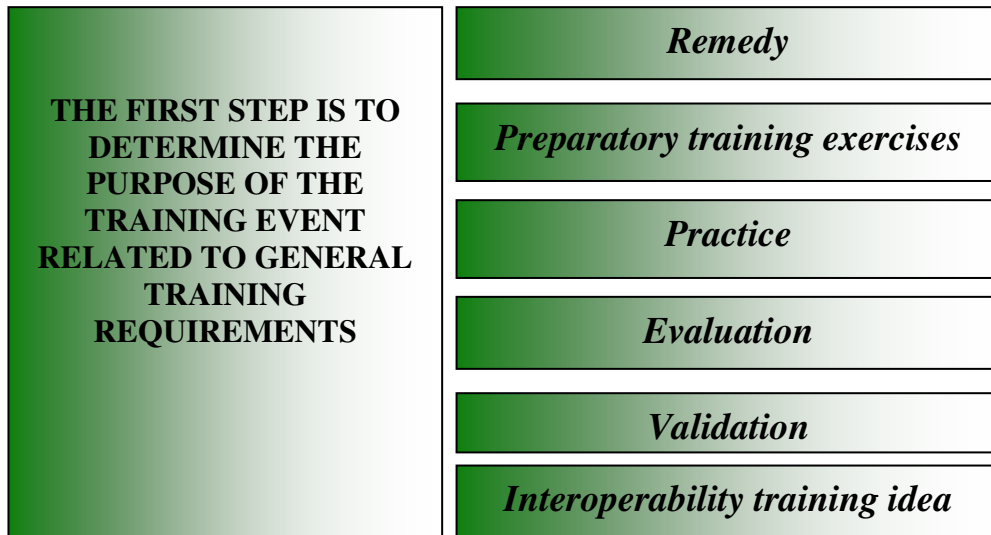


Figure 2. Finalities of training stages

These finalities of training events can be defined as follows:

✓ **education** - the transition from one level of education to a higher one;

✓ **remedy** - determining gaps in the earlier training events;

✓ **preparatory training exercise** - training to the level attained knowledge that allows preparing to participate in a joint exercise; it focuses on a specific mission or capability;

✓ **practice** - application of acquired skills in training;

✓ **evaluation** - assessing training within a specific mission or capabilities;

✓ **validation** - confirmation of concepts or new strategies as well as others reviewed with the purpose of certification and their introduction into the tactics, technique and procedure trainings;

✓ **interoperable component of the training** - training based on operational tactics, existant techniques and procedures, the ability of systems, units or forces to provide services and to accept each other, changing them, allowing them to work together effectively.

As a conclusion of the analysis carried out on this first level of techniques, tactics and procedures for training, we can mention that the best method of training is in evidence when taking into account the expected outcome of the training process that we want to project. We tried to illustrate this conclusion in Figure 3.

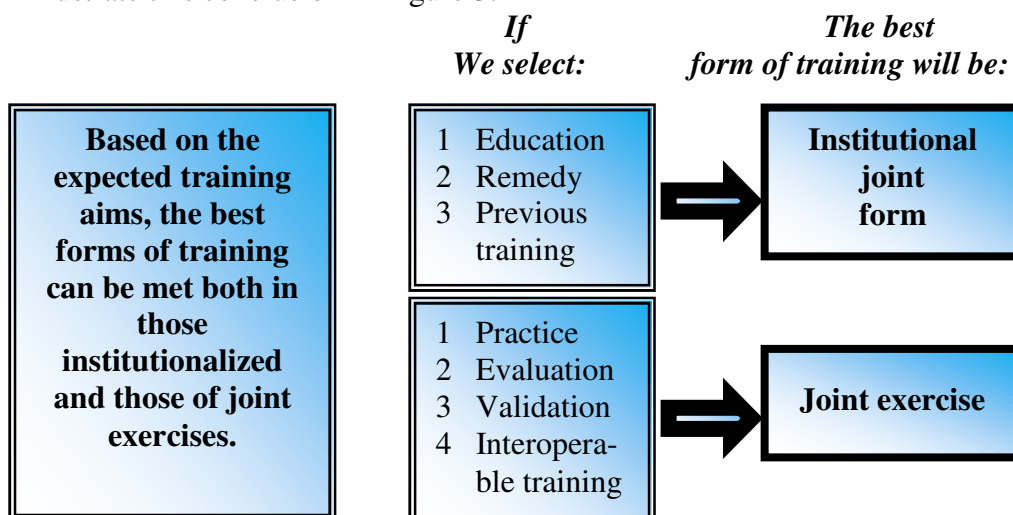


Figure 3. Criteria for selection of forms and methods of training

**Views on some effective methods of training and their selection
for communications and informatics**

After selecting the institutionalized forms of training or types of exercises, the next step is to determine the method. In determining the method of instruction, the subject of training plays a fundamental role. These subjects can be: commanders at various levels of implementation, commanders of the joint structures or components of each such level. There are also educational levels in the command structures: - head of structures (modules), specialist officers, liaison officers. Each level has different experiences, functions, responsibilities and perspectives just as it must have different availabilities for training.

We believe that the institutionalized form of training can be structured and may be performed by using the following methods:

- ✓ text brochure;
- ✓ training platform;
- ✓ training facilities;
- ✓ computer-based training.

During the process of selecting the best method of training, it helps to examine the advantages or disadvantages of each method. In Table. 1 we present a proposal for the most affordable and effective methods of training in communications and informatics, training and related subjects advantages and disadvantages of each. We believe this information should be accessed and used in establishing the most effective methods institutionalized leadership training.

Table 1.

Method	Level of participation	Advantages	Disadvantages
<i>Text brochures</i>	Specialist officers	Flexibility. Mobility. Working speed adaptable to subject. Presents basic concepts and the relationships between them.	Gaps in interaction and remediation. Calls for training and experience in training structures.
<i>Training platforms (lectures and seminars)</i>	Commanding officers, Specialist officers	Ideal for presenting new information and concepts. The experience should be generalized.	Requirements and space to conduct training. May require additional study and work individually with the instructor, if not inside the structure. Provides learning opportunities for applying minimum.
<i>Training facilities (working groups and seminars)</i>	Commanding officers, Specialist officers	Optimal guided instructions (provided). Inductive training. Workshops for senior command officers.	It supposes training facilities. It supposes time management by participants. May require travel costs studies.

<i>Computer-based training and Advanced distributed training</i>	Specialist officers	Low cost. High potential for centralizing data. Facilities management lessons earlier. Facilities for trend analysis training.	High costs for institutionalized methods. Initial costs high (high investment). Low individual interaction. Requires student access to computer and software.
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Matrix selection institutionalized training methods

Regarding the methods for conducting training exercises, we also consider that, before selecting the most effective ones, at least the following questions must be answered:

- Who are the first beneficiaries?
- What finalities are expected after the training?

For training specialists and structures of communications we consider that the two basic types of exercises are: Computer Assisted Exercises - CAXs and Field Training Exercises - FTXs. Each has distinct advantages and disadvantages which are presented in Table 2.

Table 2.

Type	Advantages	Disadvantages
CAX	<ul style="list-style-type: none"> - Aims basic training and coordinating teams of command; - Reductions in training resources; - Ideal for standard communication or joint exercises; - Does not influence the environment. 	<ul style="list-style-type: none"> - Limited training of staff of the unit. - Allows practice tactics, techniques and procedures-only lodging at the upper echelons.

FTX	<ul style="list-style-type: none">- Connections with training equipment;- Allows great scope tactics, techniques and procedures at all levels;- Allows simultaneous communication and training small structures.	<ul style="list-style-type: none">- Considerable resource (travel, maintenance, etc.);- Restrictions on security;- Movement limited during the year;- Calls powers must be limited to their specific requirements.
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CAX or FTX selecting

Achieving and maintaining interoperability with the national forces of allied states / partners for success in operations represent the ultimate goals of the training activity. Achieving this goal is far from being a simple completed process, or for which there is a “tested model” that once applied will lead to achieving our objective.

The transformations that will take place in the Romanian Army are characterized by a qualitative valence rather than a quantitative one. The finality regarding the transformation of forces will be that they will be trained adequately, distributed network-based and capable of being efficient in decision-making and achieving the desired effects in the battle space. Success in this complex environment will be provided by an educated and trained force, which possesses a complete array of specialties.

Part of the educational process of the Romanian Army communications and training specialists plays an important role in achieving the previously mentioned goals.



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