

# MODERN TEACHING METHODS IMPLEMENTED IN TRAINING OF STUDENTS OF UNIVERSITY OF DEFENCE

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Received : 19 January 2020; Accepted :17 March 2020 ; Published :30 April 2020

**Abstract:** The article focuses on the practical and methodological parts of the education of students, conducted via the Department of Tactics. The authors describe new - specific forms, methods, instruments and approaches, which are in synergy with the new generation of students, requirements for the top management of the Army and the university education rules. The authors present their current findings, results of research, and they put forward their proposals of future application.

**Keywords:** Practical education, Training, Methods, Training instruments, Feedback, Training goals

## 1. INTRODUCTION

In the Army of the Czech Republic, training occupies an exclusive and dominant position. It is the main purpose of the activities in the unit<sup>1</sup>. Under the circumstances of the University of Defence, training is classified within the teaching methods hierarchy, where it is not dominant in terms of time. Requirements of the armies as regards the preparedness of the University of Defence (UoD) graduates are expressed in the so-called graduate's profile<sup>2</sup>, which has a general (universal) component and a specialization component in the areas of the Faculty of Military Leadership. An important realizer of training within the University of Defence is the Department of Tactics (K-110), which guarantees a number of subjects, both branch-related ones and specialized ones for the field of Commander of Mechanized Units.

## 2. Conception of Teaching and Training in the Area of Tactics

On the basis of the requirement to improve the training effectiveness, experimental research, measuring and verification within applied subjects were implemented, the purpose of which was to confirm or disprove certain assumptions as regards the manner of potential adjustment or the conception of training. And then, as a consequence, receive primary data and results of measuring.

### 2.1. Approach Adjustment Bases

Through internally evaluating the training improvement opportunities<sup>3</sup> certain possibilities to improve the quality of training and, as a result, also competencies of the future graduates were found. The basic idea consists in the fact that training is very limited in terms of time and resources and therefore it is necessary to realize, in designated periods of time, such training the result of which will be as huge as possible, and it is necessary to concentrate the effort of teachers and students on that period of time. Therefore, an approach corresponding to the statement<sup>4</sup> "The more channels are used to offer a piece of information, the easier it is to remember it as the brain saves it at more places." was applied to selected topics.

Another aspect having initiated methodical changes is the fact and realization that students already belong to the so-called "Z" generation<sup>5</sup>, and at the level of the individual

<sup>1</sup> Příprava příslušníků AČR. Vyškov: Department of Doctrines VeV-VA, 2007. Pub-70-01-01

<sup>2</sup> Available :

[https://intranet.unob.cz/organy/spfv/ layouts/15/WopiFrame.aspx?sourcedoc={FEF6AD47-250C-46E1-A061-BF1EF904E395}&file=2017-11-15%20Profil%20absolventa\\_specializace%20FVL.docx&action=default&DefaultItemOpen=1](https://intranet.unob.cz/organy/spfv/ layouts/15/WopiFrame.aspx?sourcedoc={FEF6AD47-250C-46E1-A061-BF1EF904E395}&file=2017-11-15%20Profil%20absolventa_specializace%20FVL.docx&action=default&DefaultItemOpen=1)

<sup>3</sup> Method of brain storming within SWOT analysis

<sup>4</sup> Available from: [http://www.fzs-chlupa.cz/wordpress/wp-content/uploads/aktivni\\_vyuka.pdf](http://www.fzs-chlupa.cz/wordpress/wp-content/uploads/aktivni_vyuka.pdf)

<sup>5</sup> Available from: [https://dspace.cvut.cz/bitstream/handle/10467/69740/MU-BP-2017-Flenerova-Anezka-Flenerova-Anezka-BP\\_2017\\_Flenerova\\_Anezka.pdf?sequence=1&isAllowed=y](https://dspace.cvut.cz/bitstream/handle/10467/69740/MU-BP-2017-Flenerova-Anezka-Flenerova-Anezka-BP_2017_Flenerova_Anezka.pdf?sequence=1&isAllowed=y)

subject teachers, too, it is necessary to consider certain approaches that might help overcome negative properties of that generation and, vice-versa, take advantage of their strengths. However, the tried and tested methods<sup>6</sup> applied in the army do not always work in the same manner under the university education circumstances. It must be mentioned in addition that generation replacement among assistants and specialist assistants is under way, where the “X” generation<sup>7</sup> is being gradually replaced with the “Y” generation.

## **2.2. Suitable Training Methods Generated**

The approach referred to above was applied in 2018 within an experimental part of training of students<sup>8</sup> of the University of Defence. The following teaching methods were identified and applied<sup>9</sup>:

- Narrative methods: students present and give reasons for their solutions of situations, ask one another why they picked the particular solution. If a student leaves the level of theoretical principles at any moment, the teacher shall guide the student back to make sure the solutions are rational. It is always necessary to keep in mind that under the circumstances of military education students apply some of their decisions in the practical training, which might sometimes present a threat to their health.
- Operating methods: especially activities of experience, simulation games and role playing allow students to view and capture a problem as a whole and establish appropriate relations so that the student is able to deal with the problem and solve it. In particular, as part of certain K-110 subjects, emphasis is put on seminars, practice and practical training, which will considerably help complete the knowledge that the student has not classified or categorized yet. Not only in specialized subjects, but also as regards general related knowledge, such as management<sup>10</sup> or leadership.

## **3. Innovations Applied and Results Obtained in 2018**

### **3.1. Restoration of Practical Training with Combat Technology in the Combined Arms Commander Module**

This training is carried out within a subject called Combat Units Tactics. In terms of time and content, it follows up a subject called Combat Technology – Weapon Systems, in which students obtain basic knowledge and skills in operation

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<sup>6</sup> the so-called Best Practice, i.e. a collection of tried and tested procedures and techniques that helped the realizers succeed in practice.

<sup>7</sup> <http://www.aksen.cz/clanek/stret-generaci-v-cr-jejich-charakteristika>

<sup>8</sup> Subject called Tactics of Combat Units, practical training block, June 2018

<sup>9</sup> REF. 3

<sup>10</sup> The so-called pre-requisites

of the technology focusing on KBV Pandur II and BVP-2. The training takes four days. It is carried out on a continuous basis with the trainees staying in the field. Practically, students take over the vehicles and become familiar with them, and then the technology is fully available to them. They command the unit and the vehicles on their own, rotate in the individual functions, fulfil the individual training tasks, take care of the vehicle systems, use them, and perform the maintenance of the weapons and technology after the end of the training.

Most activities take place under a tactical topic. The individual training stages are interrupted due to evaluation, discussion or correct guiding of the students. As the students are generally very perceptive, absorb new information very well and are able to apply new skills, it is necessary to set the training so that the time allowance is flexible<sup>11</sup>.

In spite of the training demands, especially as regards the specialization and concentration of tasks within a short period of time, safety was not breached and there was no injury, which is typical of such intensive occupations. The training evaluation, both internal assessment carried out by the department and assessment performed by the students, implied that the form, method and selected training instruments were adequate and that the required training effect had been achieved. Especially positive students' feedback is a motivating factor for further elaboration of that training. Practical field training allows to assume an individual approach, concentrate on what is important for fulfilment of the task in the future practice, identify the students' strengths and weaknesses, and find and develop the students' talent. This is exactly what must be done in the initial stage of the students' military career so that the students can orientate themselves and develop in areas that are close to them. Thus, it is possible to raise very competent commanders, planners, organizers, trainers, and military experts.

When comparing the individual training methods in terms of the speed of absorption of the knowledge and its transformation into skills, it was found that the theoretical knowledge is solidified approximately 3 times faster for the subsequent practical application (through training).

### **3.2. Feedback Using Visualization as Accelerator**

Immediate trainee's feedback was implemented in the practical training. It was achieved by incorporating a drone in the training. Thus, a worker is appointed for a major part of the training, who uses a drone to record the key moments of the training and prepares a short presentation in order to analyse the training task having been performed. First, the students evaluate the training task fulfilment on their own, they express what was the goal or intention and say how they achieved it. Afterwards, their opinion is completed with drone shots. After they have been projected, they comment on the activities or confirm or disprove their own conclusions. If the task has not been fulfilled in a satisfactory manner, the activity is revised until it has been mastered.

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<sup>11</sup> An estimate based on the author's tacit experience – app. 30% of the time allowance is flexible.

Such feedback makes it possible to minimize potential disputes and disagreements, allows students to understand their actions better and remove the errors identified very quickly. This instrument appears to be a very important accelerator of achievement of the training goals. According to obtained data, such an instrument accelerates training by more than 100%, i.e. training is twice as fast<sup>12</sup>. In other words, twice as many training tasks with the same demands can be performed within the same period of time.

Besides the instrument described above, training also has the so-called evaluator, i.e. someone who knows the objectives and tasks of the unit. He/She monitors and evaluates the fulfilment of those objectives and tasks independently of the respective activity. This person is not a teacher, mentor or instructor being in the field directly with the unit, it is someone who can see the fulfilment of the task from a different point of view. Then, he/she is able to provide his/her independent opinion of the issue.

Thus, the hypothesis of the necessity of “independent and non-reproduced” feedback via a particular person, but using an instrument with accompanying independent commentary was confirmed.

### 3.3. From Complicated Things to Simple Ones, Simulation of Evaluation

In a subject called Medical Training within “Field Training I” we could see in past years an obvious lack of interest of students in deeper knowledge of the issue in spite of efforts to bring the reality closer to the students by means of pictures and videos. Therefore, an innovative approach was adopted that consisted in a sort of elimination of a postulate by Komenský: “From simple things to complicated ones”<sup>13</sup>. In this case, the students, not theoretically prepared enough, were brought into a very stressful situation – they became witnesses to a serious traffic accident. Thanks to the extras’ disguise and location of the vehicle in the field we achieved a very realistic picture, which required to be dealt with immediately and knowingly by every group of the trainees. Although the students tried to give good performance during that training, none of them managed to avert simulated death of one of the extras. Immediately after the evaluation, which had a form of instructions how to act, we could see that students became much more interested in the issue. During the following theoretical lectures and training, e.g. as regards cardiopulmonary resuscitation, all the students made a lot of effort to fully master the activity in a comprehensive manner. It was not motivated only by the final evaluation, but especially by the fact that the students understood their personal need of mastering the issue. Comparing to the “traditional” approach, the training objectives were achieved approximately 2.2 times quicker.

<sup>12</sup> An organic unit of an army with vehicles was compared to 4 Year students shortly trained in use of the technology and to a unit of students without using a drone.

<sup>13</sup> ARMSTRONG, Michael a Stephen TAYLOR. *Řízení lidských zdrojů: Moderní pojetí a postupy*. 13. Praha: Grada, 2014. ISBN 978-80-247-5258-7.

Within an applied subject called “Army Management”, a group of Year 5 students were given a comprehensive and complicated assignment within an issue dealing with assessment of subordinates (the so-called SluHo). The information was classified in files having a realistic basis corresponding to the documentation maintained by the individual units, and each student was instructed to act as a commander who must perform annual assessment of his/her subordinates’ work performance<sup>14</sup> although he/she only has worked as their commander for three months<sup>15</sup>. The right understanding of information, its classification, analysis, comparison and use of especially critical thinking helped them create a realistic view of three subordinates who they evaluated. Within a personal interview with an extra representing one of the subordinates they are expected to prove their ability to assess the person’s year-long performance in the position with an influence on the motivation wage component, set tasks for the next period and motivate them for fulfilment of other tasks.

As 96%<sup>16</sup> of organizations believe that employees are the most important commodity of theirs, the graduate must be able to explain to the employees and show them the reasons for and proof of their mistakes and achievements, assess the correctly and motivate them for their further activities and staying with the unit.

There was a considerable shift in the area of perception of the need of the ability of communication and argumentation including training and preparation. At this moment, it is not possible to objectively measure the output, which will always be very subjective, however, determinable, after the students deal with the issue of evaluation within the military service.

### 4. Possible Approaches and Concrete Steps to Take in the Future

With regard to the new generation of soldiers, I believe that application of modern and especially “experience-based” teaching methods is an important element in the military education system. The practical requirements for a high-quality command staff will be bigger because of the current and future challenges<sup>17</sup>, both in the form of building of an army that is ready for action and in terms of the demands and unpredictability of conflicts<sup>18</sup>. The individual fields of specialization will thus require both quality and quantity. In

<sup>14</sup> *Vyhláška o postupu při služebním hodnocení vojáků a jeho hlediscích*. In: Act No. 189/2015, Coll. Praha: Sagit, 2015, year 2015, issue no. 189.

<sup>15</sup> Students will be in this situation immediately after joining the unit, i.e. in December 2019..

<sup>16</sup> ŠINKÝŘ, Martin. *Nejlepší praxe v řízení lidských zdrojů: Manažer*. 1. Praha: Grada, 2014. ISBN 978-80-247-5212-9

<sup>17</sup> NĚMEČEK., Vojtěch a kol., *Trendy kariérového vzdělávání důstojníků*. Univerzita obrany v Brně: UO Brno, 2017. ISBN 978-80-7582-011-2.

<sup>18</sup> HRNČIAR, Michal. *Keystones of irregular warfare*. Sibiu : Nicolae Balcescu Land Forces Academy, Romania, 2017. ISBN 978-973-153-273-8.

terms of teaching and training in the area of unit tactics it is essential to respect this trend and meet the requirements for specialization. This can only be achieved through a flexible response to new needs, through innovation and by sticking to tried and tested approaches.

To meet the needs of teaching in the area of unit tactics, other opportunities for innovation were identified, both within the Department of Tactics and in cooperation with other workplaces and departments of the University of Defence.

- Continue following the newly established trend of improving the knowledge, habits and skills necessary for the work with the technology in the form of simulator training and practical field training. This shall be applied separately within the individual subjects and the individual pieces of information shall then be put together in the form of field training. This shall be realized at least once every term in order to maintain and subsequently gain new skills.
- Across specialized departments and in cooperation with armies prepare a sample Operational Command (OPORD) for the Battalion Task Force (PÚU), where the individual combat stages will be represented by the individual kinds of tactical activities (defensive, offensive, stabilization, other<sup>19</sup>). The individual stages will be divided into sub-stages or phases, which will represent the tactical activities we want to teach our students in practice. Thus, on the platform of a single tactical topic, a single space with invariable terrain coding we will achieve perfectness of a sample document for students (using the principle of illustration), which will contain all key elements of the PÚU system. The individual experts can use it both for teaching and training. The document is comprehensive and compact and allows students of any branch to perceive the comprehensiveness of a combat task from the level of battalion downwards. This OPOORD is further developed for the level of the company, platoon, squad in the form of sample documents. Graphic enclosures can be prepared in layers for the Operational Tactical System (OPS) to be used for training in the Centre of Simulator and Trainer Technologies (CSTT). As the student is advancing up the years, the scenario and main tasks repeat, the documents do not change; what does change is the method of the task realization, the time and the level for which the student is being prepared. Much better fixation of knowledge and skills than in case of several different trainings and scenarios can be anticipated. The scenarios referred to above may repeat during the training, too, but the training method may differ. First, training can take place with the support of computers (CAX during the CSTT), then training using VBS (Virtual Battle Space), followed by training using constructive simulation tools, and the last will be field training using live simulation. If this has been passed, a high-quality learning output can be anticipated,

consisting in the students having mastered commanding, management and technology and being able to apply the principles of management of the individual tactical activities.

- Within selected branches, carry out common training of specializations as part of fulfilment of the combined arms force's tasks (from the level of battalion downwards<sup>20</sup>) according to the particular area of specialization. Theoretical bases will be applied in practice and the knowledge, habits and skills having been obtained so far will be made complete. Thus, the ability to understand the combined arms combat and the problem comprehensiveness will be supported.
- The authors consider the identification and development of talent an integral part of the student's formation and of the skills of the leader (the teacher under our circumstances), who can make use of people's potential. The planning of studies focused on the programme limits this possibility. It is a challenge to contemplate whether there is a possibility to offer, within the programme of study, "obligatory subjects to choose from", which will support the approach defined above. From the practical point of view, there is probably no managing worker who is an excellent leader, a great staff worker, a superb fighter, a perfect trainer, who speaks at least 2 world languages, and, in addition, who is perfectly physically fit. It is, of course, necessary to comply with the required standard, but, at the same time, offer to the student a possibility of development in the direction in which he/she shows certain talent. The first (the only one and a very successful one from the author's point of view) "project" of this kind is a hobby group called Commandos, which trains students in the control of tactical activities of small units. However, it is not a part of the programme of study, it is completely voluntary, and does not belong to obligatory subjects to choose from.

## 2. CONCLUSION

The current and future qualitative and quantitative demands of the army placed on graduates of the University of Defence and the entry of a new generation of students bring about an issue of how to respond to and fulfil the following task – to train and prepare the graduate according to the requirements of, under our circumstances, mechanized army. The current experience implies that certain approaches to teaching and training of students in specialized subjects, which are still valid and which have worked very well so far, must be revised and innovated in order to achieve the effect required. However, this is expected from the subject guarantors, especially in applied subjects that are subject to the development dynamics. Among the possible solutions might be to link theory and practice, communicate the instruction on the particular topic through more channels emphasizing one's own experience, on the basis of which the student

<sup>19</sup> *Taktika pozemních sil*. Vyškov: Department of Doctrines VeV-VA, 2011. Pub-31-10-02.

<sup>20</sup> E.g. the specialization of intelligence will perform the staff intelligence functions at the level of battalion.

absorbs even related theory and principles. And to develop those approaches gradually and incorporate them with regard to the assignment of the programmes of study and with regard to the required graduate's profile.

## Reference

- [1] ARMSTRONG, Michael a Stephen TAYLOR. *Řízení lidských zdrojů: Moderní pojetí a postupy*. 13. Praha: Grada, 2014. ISBN 978-80-247-5258-7.
- [2] Generace X, Y, Z na trhu práce [online]. Praha, 2017 [cit. 2018-11-30]. Available from: [https://dspace.cvut.cz/bitstream/handle/10467/69740/MU-BP-2017-Flenerova-Anezka-BP\\_2017\\_Flenerova\\_Anezka.pdf?sequence=1&isAllowed=y](https://dspace.cvut.cz/bitstream/handle/10467/69740/MU-BP-2017-Flenerova-Anezka-BP_2017_Flenerova_Anezka.pdf?sequence=1&isAllowed=y). Bachelor Thesis. Czech Technical University in Prague. Thesis supervisor PhDr. Blanka Jirkovská, Ph.D.
- [3] NĚMEČEK., Vojtěch a kol., *Trendy karierního vzdělávání důstojníků*. Univerzita obrany v Brně: UO Brno, 2017. ISBN 978-80-7582-011-2.
- [4] *Příprava příslušníků AČR*. Vyškov: Odbor doktrín VeV-VA, 2007. Pub-70-01-01
- [5] Střet generací v ČR a jejich charakteristika. *Aksen.cz* [online]. 2014 [cit. 2018-11-30]. Dostupné z: <http://www.aksen.cz/clanek/stret-generaci-v-cr-jejich-charakteristika>
- [6] ŠINKÝŘ, Martin. *Nejlepší praxe v řízení lidských zdrojů: Manažer*. 1. Praha: Grada, 2014. ISBN 978-80-247-5212-9
- [7] *Taktika pozemních sil*. Vyškov: Department of Doctrines VeV-VA, 2011. Pub-31-10-02.
- [8] *Vyhlaška o postupu při služebním hodnocení vojáků a jeho hlediscích*. In: Act No. 189/2015 Coll. Praha: Sagit, 2015, year 2015, issue no. 189.
- [9] HRNČIAR, Michal. *Keystones of irregular warfare*. In : The 23rd International Conference The Knowledge-Based Organization [electronic source] : Management and military sciences. Sibiu : Nicolae Balcescu Land Forces Academy, 2017. ISBN 978-973-153-273-8, pp. 150-154.