

# Selected aspects of the field training of the University of Defence students as a challenge for ensuring security in the future?

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**Abstract:** *The article deals with the topic related to the training of the University of Defence students for the future security environment. The authors introduce their experience gained due to a specific method of training, which is aimed at a new generation of commanders-leaders. They present their results from 2016 to 2020 and the development of this course in consideration with new security challenges. The authors describe selected tools, by means of which the students achieve training goals, forms of multidisciplinary skills and the characteristics of cadets in one. The following results may initiate the discussion of the system and approach to the training of military cadets as potential workers in the field of national and international security.*

**Keywords:** ABILITIES, KNOWLEDGE, SECURITY, STUDY PROGRAM, TRAINING ON THE BATTLEFIELD

## 1. Introduction

The training of the future security personnel is one of the important factors in preparing for new challenges in the field of national and international security. In addition to other components of the state, the Army or more precisely the Armed Forces have a dominant role in the security system. From the viewpoint of the organization and operation of the national security system it can be stated that the level of security will depend on capable people who are comprehensively mature personalities able to operate adequately in the system. The beginning of the career of a large part of security personnel starts just at military universities. They are able to form a generation of people who will be ready to face complex challenges and threats affecting national and international security through a well-designed study program and adequate staff coverage.

In 2019, the National Accreditation Bureau approved a new master's degree program entitled Management and Employment of the Armed Forces<sup>1</sup>, the guarantor of which is Assoc. Prof. Ivo Pikner, Ph.D. As compared with the original one from 2014, the program was redesigned in many aspects. The new program also meant a practical change to one of the key military courses of the applied basis - Field Training. This course is divided into six semesters and is attended by an average of 200 students in each grade. The Department of Tactics is responsible for the organization, management and outputs.

The future security environment will require young officers to have advanced information skills. The status and mastery of this activity by students is one of the important aspects for field training. Not only for the needs of the course and the emphasis on the development of the ability to make decisions in the case of information (un)certainly, the authors of the article have decided to carry out an experiment. The intention was to test beginning students and their hitherto not very described ability to extract data. For this purpose, they are experimentally confronted with a source that has a surplus of data and rules on how to deal with it under the conditions of limited time and in the activities seemingly unrelated to the data source.

## 2. Literature Search

Basic literature concerning the experimental survey itself was used; from a methodological point of view, the principles of the work mentioned in the source [1] were also used for planning the experiment. The authors used research results [2] as well as literature dealing with the methodology of commanders' effective decision-making [7]. The assignment and the very idea of the

experiment were formulated on the basis of the results of the studies [10]. In his article, the author describes four acceptable scenarios of the future development of the security situation for the Czech Republic. As for each of the scenarios presented, a goal-directed, well-thought-out information effect of an entity able to produce data of a various type and to appeal to citizens, including the personnel operating in the field of security at least at the national level, may be essential. The social network appears to be the most probable method of this effect. The initial predictions of the authors based mainly on andragogical practice and commanders' experience are in considerable mutual agreement with the result of the article [3]. The basic research questions of the experiment and the source documents for a final discussion were created on the basis of a sum of conceptual requirements for the needs of initial training of the security personnel in confrontation with the effects of andragogy, current possibilities of social networks and with the use of the article conclusions. [1]

## 3. Experimental conditions

The research questions were the following ones:

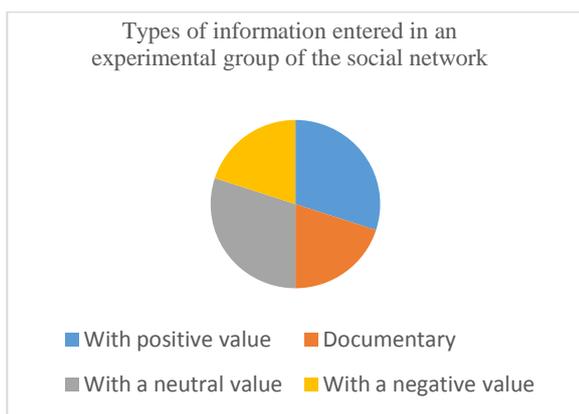
To what extent do the students work with indefinite data when fulfilling the scenario?

To what extent are the students able to use this data for their own benefit?

The experiment was focused on finding out the basic abilities of the University of Defence students, the 1998-2000 age group; it was focused especially on finding out the students' aptitude for the acquisition, critical confrontation and the use of data provided by an entity with a significant information base working "for their benefit". The students are outstandingly educated people, with military experience of about 6 months, without more intensive training in the field of effect of information technology. The entry requirements for the research sample were supplemented only with the data on the currently favourable state of health. A total of 38% of students are enrolled in study programs in technical fields (including future informatic specialists or military pilots) of the University of Defence, the rest of the students are included in the portfolio of command specializations of the Faculty of Military Leadership of this university. The experiment was carried out as an "IN VIVO" experiment, i.e. a field experiment. The soldiers were divided into four- or five-member groups based on their own preferences. As an important part of the experiment, the scenario was created to test the abilities of the groups of students in basic military skills used in studying at the University of Defence. The whole scenario was realized under time pressure and at night in the municipal districts of Brno. An important factor was the possibility to use a mobile phone with an internet connection throughout the experiment and the students' participation in a closed Facebook

<sup>1</sup> *Management and Employment of the Armed Forces, program code M1031P020001, date of approval on March 7, 2018, guarantor Assoc. Prof. Ivo Pikner, Ph.D.*

group created in favour of the scenario they were to fulfil. The group administrator (a fourth-year student of information technology) prepared a number of photos in advance from places and outside the places where the students occurred during the scenario. Due to a thorough preparation, about 60 photographs and 8 videos with students in various parts of the city were obtained or staged in advance. Additional information was obtained and sent in the online mode to the group administrator during realizing the race of groups according to the assignment of the scenario. The internet coverage in 90% of the scenario route was sufficient for all networks for the possibility to download and share videos, watch posts and possibly comment on them. The scenario was realized in two stages in February 2019, separately for the students of technical fields and separately for the students of command specializations. The main organizer of the scenario did not join any group; each group was managed exclusively by a designated administrator all the time. He provided the group with ad hoc 30% of posts (data, photos, videos) with an informative value in favour of the scenario, 30% of neutral posts that did not affect the ability of the groups to fulfil the scenarios. A total of 20% of the posts were documentary (photographs of the winners of individual sites, etc.) and a total of 20% of the posts were confusing, misleading, with a negative information value. The Facebook group functioned throughout the individual training groups' participation in the scenario. The last posts were sent after the end of the whole scenario and were rather of a neutral or documentary nature. The environment of the social group in the Facebook network is presented in Graph. 1.



**Graph 1:** Source: Authors' own elaboration

Student groups of four or five members were a dependent variable of the experiment; they had an available internet connection and an opportunity to be involved in a pre-created group within the social network. The soldiers in the groups had no medical restrictions, they were in a specified age range, with a specified education and an effort to fulfil scenario seemingly unrelated to the group. They were given information on the group that they could find valid and misinformation materials here and it was up to them whether and how they would use this information. At the same time, they knew that even without the use of this source, it was possible to manage the scenario. To fulfil scenario, the groups of students had to work under time pressure. The decision to put students into groups was made to create opportunities for social networking during the scenario. If the students worked independently and had to complete the tasks of the scenario, they would not have enough time for monitoring and reactions in the Facebook group. A total of 244 students participated in the research.

The group administrator equipped with the data in the above-mentioned ratio was an independent variable. He communicated with both the whole group and the individuals continuously throughout the realization of the scenario.

The intervening variables were mainly the abilities of the individuals in the group to critically evaluate the data, their physical and mental abilities to fulfil the scenario, and the degree of synergy among the members.

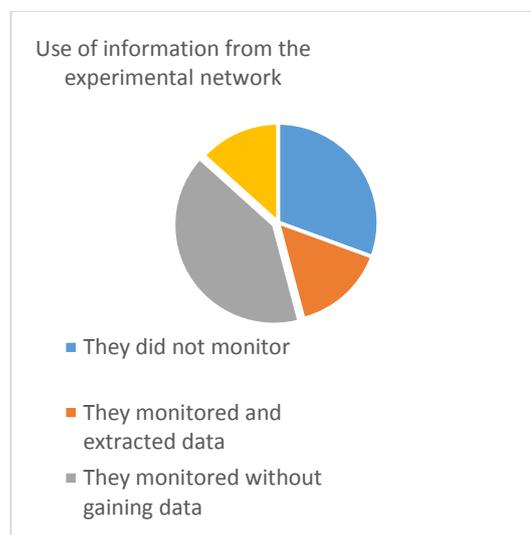
#### 4. Experimental results

On completing the scenario, the students filled out a brief questionnaire related to the use of the requirements for virtual data and especially to the use of the Facebook group for their own benefit. The order of the individual groups was not emphasized during the evaluation of the questionnaires.

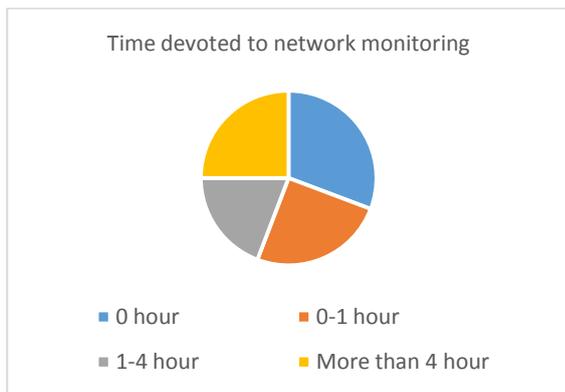
##### 1. Use of data from the Facebook group for the scenario

Out of the total number, 16 groups (30.7%) stated that they had not used the data from this group for the entire period of fulfilling the scenario. 14 groups out of these 16 (26% of the total) stated they had been concerned about the data misinterpretation owing to the time constraint of the scenario. The rest of the groups answered the supplementary question in such a way that they had not had time to devote themselves to the network due to the complexity of fulfilling the scenario.

Other 36 groups, i.e. the mode of the dependent variable (69.3%), stated that during the tasks performed within the scenario, they had monitored events in the social group. 13 groups (25%) with low intensity (within one hour during about 8 hours of the scenario); 10 groups (19%) with medium intensity (i.e. 1-4 hours of the scenario); and 13 groups (25%) with high intensity (all the time, one student appointed by the group watched the network, or more people watched the network). Of this number, only 8 groups (15%) stated that they had managed to find the data that significantly helped them to fulfil their task. It is interesting that with one exception these were the respondents who stated that they had been involved in the network with medium intensity only. The majority, i.e. 21 groups (40%), claimed that the data had not helped them in any way, nevertheless, this data had not had any negative effect on the fulfilment of the scenario. The remaining 7 groups (13%) claimed that the data had bothered them, had guided them incorrectly or otherwise had made the scenario uncomfortable for them. This number also correlates with the information from the group administrator that the soldiers from these groups responded differently to the posts, tried to remove them or to rectify them. This verified the data provided in the questionnaires. It is interesting that more than 50% of these groups simultaneously stated that they had followed Facebook continuously.



**Graph. 2;** Source: Authors' own elaboration



**Graph. 3;** Source: Authors' own elaboration

Overall, based on the data obtained, it can be concluded that during the scenario, only 15% of the groups were able to critically analyse the transmitted data and benefit from them. The remaining 85% of groups either did not monitor the data or were unable to successfully evaluate them, or the data meant an obstacle to fulfilling the scenario. A special feature of these groups was the ability to monitor the network for 1-4 hours only, i.e. not continuously. On the contrary, the groups that paid most attention to the data on the network were not able to use it; they even had difficulties with the data published. In addition, six groups of this category were constantly involved in social networking. Thus, 11.5% of students demonstrated a very low ability to work with information.

The answers to the research questions can be formulated on the basis of these data:

To what extent do the students work with indefinite data when fulfilling the scenario?

Nearly 70% of students worked with the data. Only 30% of them did not show interest in the data despite of the sense of a possible handicap during the scenario.

To what extent are the students able to use this data for their own benefit?

Only 20% of the groups using the data stated that they had been able to use it for their own benefit. The others were not able to interpret it or they misinterpreted it.

It has been found out in the research that the degree of ability to retrieve and convert the obtained data into valid information is very low, even though 80% of the information provided was minimally neutral. Although the overall results of the respondents freely correlate with the statistical normal (Gaussian) distribution, this result is insufficient in the context of the education of members of individual groups. This indicates the fact that students pay very little attention to the critical analysis of information provided by the social network. A partial apology as well as a value reducing this ability could be a generally low level of experience (the respondents were students of the 1<sup>st</sup> year of the University of Defence). Purposeful misinformation effect appealed to 28 groups (except for those who did not pay attention to the web at all and those who were able to evaluate the data appropriately), which represents an absolute majority (54%) of the entire research sample. Regardless of other consequences, a relatively clear conclusion can be drawn on the basis of the obtained data; that means that such an action can affect an enormous number of people.

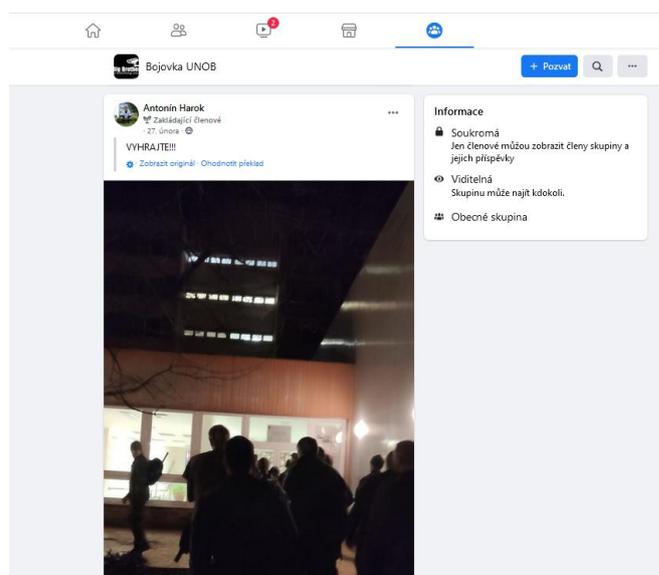
Despite of the physically and mentally demanding scenario, there were a total of 23 groups (44%) that stated that they had devoted

themselves to the social network continuously. It can be argued here that the research sample has generally demonstrated the ability to have an adequate access to the social network and the ability to determine one's own limit for focusing on this information.

The introduction of a study subject, which should aim at the increase of students' ability to critically evaluate the data available on social networks, would be of medium and great importance for a total of 85%, i.e. 207 students. Due to the expected development of this communication tool (not necessarily the Facebook network, but its successors), the number of respondents who did not devote to the network will very likely decrease and thus they will strengthen other groups proportionally.

It will be interesting to follow the development trends depending on the variable (i.e. time) and, at the same time, to confirm or refute the above-mentioned theory.

The whole experiment took place under time pressure; students were exposed to demanding tasks and a great deal of uncertainty. At the first glance, it would be possible to argue that if the respondents worked in a more comfortable environment, they would achieve diametrically different results. On the other hand, it is not possible to overlook the fact that social network users often write posts and comments when they do sports, wait for the train, on the way to work, practically all the time. Thus, the above-mentioned argumentation is inappropriate.



**Fig. 1** Recording of the group; Source: Authors' own elaboration using the Facebook social network

## 5. Conclusion

Generally, it can be said that the impact of social networks on the future security personnel is significant. At the same time, the upcoming generation of soldiers, i.e. the students with above-standard education, who have lived all their lives in the information age, does not have an automatic ability to work effectively and objectively evaluate the data obtained. It can be expected that this ability would increase with the age of the respondents, however, not as fast as would be desirable for the needs of the security force activity. For their ability to evaluate the required data quickly, it is necessary to create conditions for them at the beginning of their training, see [13]. The majority of reasonable people strengthen their attitudes to essential things in a long-term process. If they have a limited ability to critically assess data, it is possible to purposefully influence them to accept pre-prepared conclusions. This can be and probably will be one of the basic factors with a

critical degree of threat to national and international security, if these conclusions are not reflected in the adjustment of study subjects for the military school students. At the same time, the findings and the fact described indicate that the respondents, i.e. young educated people, pay little attention to the critical analysis of information from social networks. In the case of long-term high-quality results of selected students, whose work bears the basic elements of intelligence analysis from the beginning, cf. [12] or [11] (albeit in an intuitive way), it is possible to select individuals with a talent for working with information and then to continue to direct them in an appropriate way.

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