

National University of Public Service

Doctoral School of Military Sciences

PhD THESIS BOOKLET

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**Application of new education and training methods in the training
and preparation system of the Hungarian Defence Forces**

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Table of Contents

1.	Topicality of the subject	3
2.	Research problems and hypotheses.....	4
3.	Research objectives	7
4.	Research strategy, type and methods	8
5.	Concise description of the research	11
6.	Summary conclusions of the research.....	14
7.	New research findings	17
8.	Recommendations and the applicability of research findings	18
9.	List of own publications.....	20
10.	Thesis author resume	22

1. TOPICALITY OF THE SUBJECT

These days, we are living in extraordinary, one might say, historic times. In a security situation deteriorating both globally and regionally, in parallel with the transformation of the security structures that have been stable for decades, the comprehensive force modernization of the Hungarian Defence Forces has been initiated in order to adequately address the threats and challenges identified in the field of security. The education and training systems development of the defence forces is also of particular relevance in the force development processes. The programmes for the procurement of military equipment under the Force Development Programme logically induce the change and expansion of knowledge content, which processes have led to an increased demand in the education and training systems to find new ways, and to place development opportunities on a new basis.

The development process was briefly interrupted by the outbreak of the SARS-CoV-2 (COVID) coronavirus in 2019. The coercive effect of the pandemic on the development of alternative education and training procedures, individual digital competences, and on the emergence of new technologies was indisputable, as we had to realize that we were significantly behind the world in certain areas (and skills). Previous professional concepts had to be revisited, which, although they were forward-looking, without sufficient resources or support, have not developed into system-level capabilities.

The size of the defence forces personnel has grown dynamically in recent years – especially in terms of reserve forces; there is an influx of fresh, energetic and motivated young people belonging to the new, digital generations, whose learning characteristics, strategies and motivations may in many cases be different. To achieve the strategic training objectives, it is, therefore, important that, in addition to the traditional and proven education and training procedures and methods, new methods, mainly based on new digital technological achievements (distance learning, social interfaces, artificial intelligence, etc.), are introduced in the education and training system of the defence forces.

Within this complex system, my thesis examines a specific area where the aim is to comprehensively investigate the distance learning capabilities supporting the education, training and preparation system, to analyse the related doctrinal background, and to (re)introduce and apply procedures and methods which can be used

to improve the effectiveness of education and training support, while reducing the available resources (time, costs, manpower).

The interdisciplinary characteristics of military science are strongly reflected in this research field as well, since within one research area, it is necessary to examine a number of knowledge areas belonging to many other academic fields and branches of science, such as sociology (X, Y, Z, A generational characteristics in relation to learning processes), pedagogy and andragogy (examination of education and training methods, procedures, principles) and technical-informatics (examination of possibilities of distance learning procedures based on new technological development).

2. RESEARCH PROBLEMS AND HYPOTHESES

The preparation of the Hungarian Defence Forces for effective home defence - as defined in the Fundamental Law of Hungary - is one of the most important elements of the defence forces' complex task system, which is most emphasized by the volume and ambitions of the Force Development Programme. In order to develop the traditional and functional capabilities of the defence forces, it is a task of utmost importance to review education and training at the system level and from a complex systems perspective, and to integrate the results of the analyses into the operating principles and procedures of the entire Hungarian Defence Forces and its individual subsystems in a goal-oriented manner.

The sources of the formulated research problems are different. Some of them stem from the practical experience of working in the field of education and training, since we are investigating what methods can be used to remedy the lack of skills, and what procedures can be used to achieve the learning objectives. Other problems can be traced back to the deficiencies of certain theoretical propositions and methodological foundations, as the Hungarian Defence Forces is not in the possession of any available methodology in the field of ADL training content development.

When raising the research problems, it was a key requirement that the investigation should contribute to the development of the theoretical knowledge of pedagogy and should have added value to the development of pedagogical methods. Its practical utility should be demonstrated in the field of military education and

training, and, in addition to its timeliness, some of its sub-areas should be researched using available methods and provide a suitable basis for the development of further research directions.

The personnel of the Hungarian Defence Forces currently belong to Generations X, Y and Z, whose learning preferences, motivations and strategies are different, not only because of their ability to capitalize opportunities offered by technological progress (different information technology platforms, social networks, artificial intelligence, Big Data analysis, etc.), but also because of the diversity of digital competences; not to mention the Alpha generation targeted by the future army, for whom all this is an integral part of everyday life.

Research problem 1 – The point of gravity of the first research problem is the question of whether the generational characteristics of the Hungarian Defence Forces can be identified based on any research/analysis schemes from previous research in the field of pedagogy (such as for example, the VARK model), which clearly determine the typical learning preferences, strategies and motivations of each generation. And if the answer is yes, does the education and training system of the defence forces have resources (human, infrastructure, IT, data, etc.) and methodological background to respond effectively to the diverse and complex needs of the present and future learning audiences?

Hypothesis 1a – Using representative samples taken from the defence forces, the learning preferences, motivation and strategy characteristics of each generation (X, Y, Z) can be assessed, examined and demonstrated, thus the different education and learning needs of the target learning audience can be distinguished (traditional or alternative learning processes).

Hypothesis 1b – The current education and training system of the Hungarian Defence Forces does not have a differentiated response based on sociological and pedagogical research to the needs of different generations in terms of education and training procedures and methods.

Research problem 2 – The main question of the second research problem is whether the policy-makers and military decision-makers have an authentic and realistic, properly detailed situation assessment of the capabilities and development possibilities of the distance learning system that supports the complex system of

military education and training for all capability components, as well as the current and future challenges in terms of both traditional and atypical methods. The question also arises as to whether there are national or international best practices and models available for the concepts to be formulated in order to develop the skill components, which are able to support this aspect of the Force Development Programme's education and training reform in a targeted and cost-effective way.

In the education and training system of the armed forces, there were several initiatives in the past, the momentum of which was broken, and due to generational changes, a significant loss of knowledge was realized, which has prevented non-traditional, atypical – mainly e-learning – methods from developing into a system-wide capability to meet the educational and training needs of the entire defence forces. Sub-capabilities are available in the form of ADL training content development and framework delivery; however, these do not represent a full-fledged system, as only some elements of the required capability components have been built up based on internationally recognized system theories – ROSEN Model, NATO ADL capability maturity model.

Hypothesis 2a – The responsible policy and military decision-makers have only a subset of authentic and realistic situation assessment of the capabilities, development opportunities, and current and future challenges of the atypical branch of military education and training, derived from national or international model analysis.

Hypothesis 2b – By examining the non-traditional, atypical education and training capabilities (distance learning, e-learning), which operate in an "island-like" manner, and by using international models, an authentic picture of the existing capability components can be provided, which will contribute to the preparation of the decisions made to create a system-level atypical teaching and training capability, serving the needs of the entire personnel of the defence forces.

Research problem - III. - In order to develop the traditional and functional capabilities of the defence forces, it is not enough to know the entire target learning audience and their individual education and training needs, as well as the capabilities and possibilities of the available non-traditional, atypical training system, but one must be able to accordingly manage the learning processes must be managed appropriately to achieve educational and training objectives, therefore, an effective response need to be given to the question "How?", that is, what principles and methods are used to

operate the system.

The current atypical teaching and training capabilities operating in an "island-like" manner are an assessable capability only in the field of learning delivery, which means sharing and managing certain learning materials as needed. The complete lack of strategic, doctrinal, conceptual and methodological background necessary for the development of real capabilities is the primary and most important obstacle to capability development. Since the ability to serve the entire defence forces personnel has not been built up to this point, this shortcoming cannot be attributed to the professionals serving in the field of education and training, however, it is a priority to fill this gap.

Hypothesis 3 – By examining the development trends and concepts affecting civilian and military education and training, both national and international, as well as atypical education and training systems that work effectively, it becomes possible to identify best practices, methods and procedures that can be effectively integrated into the overall education and training ecosystem of the defence forces in terms of functionality and cost allocation.

3. RESEARCH OBJECTIVES

The overall aim of the research is that, by exploring and deepening new knowledge, with the help of best practices and experiences gained in the field of education and training, recommendations for improving efficiency are formulated, preferably at the systemic level, affecting a particular system element of education and training (distance learning capability).

- a) The first step is the search for relevant documentation. There is relatively little research and academic documentation on the applicability of modern education, training and learning methods, and advanced distance learning systems in the training system of the Hungarian Defence Forces, therefore, I examined previous relevant doctoral dissertations as a starting point.
- b) The second step is familiarization with the basic terminological concepts and specific terminology applied in the field of expertise.

- c) In a third step, the generational characteristics (learning preferences, motivation and strategy) of the Hungarian Defence Forces are assessed and analysed on the basis of the study/analysis schemes from previous research in the fields of pedagogy and sociology (VARK model).
- d) The fourth step is the examination of best practices and models of non-traditional, atypical education and training procedures, mainly in an international approach. Based on international models of capability development (ROSEN Model and NATO Capability Maturity Model), the realization of national capabilities and possible future directions is analysed.
- e) The fifth step is to formulate proposals based on authentic samples to establish the methodological foundations of ADL training content development.
- f) As a sixth step, further research directions are opened on the possibilities of integrating future technological achievements (virtual spaces, Big Data analysis, artificial intelligence, etc.) into learning processes.

4. RESEARCH STRATEGY, TYPE AND METHODS

I have devised the research strategy and research methods based on the specific research objectives stated above. Classification of the research:

- Fundamental research:
 - examination of the generation-specific learning preferences and strategies of the military personnel of the Hungarian Defence Forces;
- Applied research:
 - a comprehensive capability study based on model analysis of the distance learning system supporting the education and training system of the defence forces;
 - development of a proposed methodology using procedures, principles and methods based on national and international models and best practices;
 - examination of the integration of new technological achievements for training purposes.

Based on a deductive or analytical strategy, I searched for existing general principles, regularities, as well as documents describing national and international experience from research conducted in this academic field, which help in the practical utilization of the theoretical results.

The inductive element of the research strategy has two distinct directions. On the one hand, based on the principles of an inductive-descriptive strategy and empirical experience in the field of practical implementation, it attempts to lay certain theoretical foundations and methodological processes that have not yet been formulated (methodology of ADL training content development). On the other hand, within the framework of an inductive-correlational research strategy, it seeks to find the relationships, interrelationships and correlations between different variables in the field of generation-specific learning preferences, motivations and strategies of the Hungarian Defence Forces personnel.

Research methods and tools in relation to the research objectives:

I intend to accomplish Research Objective A (search and analysis of relevant documentation) and Research Objective B (familiarization with the basic terminological concepts and special terminologies applied) using a basic exploratory method, i.e. document analysis, in which I intend to compile the necessary theoretical knowledge base, as well as the list and definition of related terminological concepts, by processing as many relevant national and international documents as possible, as follows:

- Processing national (in the Hungarian language) and international (published in English) literature (strategic basic documents, studies, analyses, publications);
- Examination of advanced distance learning principles, methods and procedures applied by UN and NATO partner organizations in their electronic, web-based virtual operating environment;
- Secondary analysis and content analysis of relevant documents and statistical data;
- Comparative critical examination of the basic regulatory documents of the training system of the Hungarian Defence Forces, and the exploration of anomalies in the operational mechanism;

- Problem-oriented comparative analysis of theoretical and practical experiences, based on information from educational organisations (Milton Friedman University, Gábor Dénes University) that use distance learning methods, principles and platforms.

Research Objective C (generational characteristics – learning preferences, motivation and strategy) is to be achieved by means of an analysable information database, which is provided by a sociological survey in the form of an electronic questionnaire. The questionnaire, which is extensive (28 questions), is designed to be representative and it aims, among other things, to assess demographic, electronic content consumption characteristics and learning preferences, and in addition, to identify the different teaching and learning needs of the generations of the defence forces (X, Y, Z) and their representative preferences in terms of digital content consumption habits.

Research Objective D (examining the indicators of distance learning capability development based on international models) is achieved, on the one hand, by document analysis (human strategy¹, educational strategy, current concepts of the Hungarian Defence Forces, etc.), and by interviewing authentic representatives and decision-makers in the field in order to examine the alignment with international models (ROSEN Model, NATO Advanced Distributed Learning Maturity Capability Model).

I intend to achieve Research Objective E (defining the methodological basis for ADL training content development) and Research Objective F (investigating the possibilities of integrating new technological achievements into learning processes) by means of document analysis, in which international specialist publications and NATO strategic-level doctrinal publications provide a relevant and useful basis.

The documents to be processed as part of the document analysis are described in the following sections.

¹ Ministry of Defence: Honvédelmi Humánstratégia (Ref: 3896-1/2021, in force from 5 July 2021)

5. CONCISE DESCRIPTION OF THE RESEARCH

After the first chapter, which sets the general framework of the research (theoretical approach, research problems and hypotheses, research objectives and strategy, etc.), the second chapter is mainly devoted to the processing of relevant documentation, the examination of concepts and terminology used in the field of educational theory and pedagogy, as well as the presentation of non-terminology applied in the field of atypical education and training procedures.

With the information gathered, I was able to examine and interpret the correlation between the civilian scientific terminology and the terminology used in military literature. The results of the study show that the terminology and its content in the field of military education and training, particularly in the triad of training, education and preparation, are not always clear, and that the boundaries and correlations are difficult to interpret for those working in the field, which can lead to misunderstandings in many cases, and it is therefore recommended to take further steps in this area in the future.

In the third chapter, my research objective was the assessment and investigation of the generational characteristics (learning preferences, motivation and strategy) of the personnel of the Hungarian Defence Forces based on examination/analysis schemes from previous research in the fields of pedagogy and sociology (VARK model). The analysable information database necessary to achieve the objective was provided by a sociological survey in the form of an electronic questionnaire.

Based on the data from the survey of the generational characteristics of the defence forces, I examined and analysed the characteristics and capabilities of each generation's digital competencies, as well as which digital content they most prefer to consume during their presence in virtual space.

Both the study of the generation-specific differences within the defence forces and the assessment of the digital competence characteristics provided valuable data and detailed information for the foundation of future distance learning capabilities, since the research revealed for what kind of learning target audience (who?), based on what training content (what, what type of content?) distance learning content can be

created. The real value of this chapter's main objective was the examination and analysis of learning preferences and strategies (how?), based on Neil Fleming's VARK methodology, which aimed to determine the interrelationships and correlations of the four main learning preferences (visual, auditory, reading/writing, kinaesthetic learning strategies) with respect to generational characteristics.

The research objective of the fourth chapter was to investigate the best practices and models and the development directions of non-traditional, atypical education and training procedures, mainly in an international approach, as the concepts and ideas of national capability development and the definition of possible future development directions can only be determined following the international models of distance learning capability development (ROSEN Model and the NATO ADL Capability Maturity Model).

In order to create this chapter, I used the method of document analysis to review in detail the existing strategic-level documentation (National Military Human Strategy, National Military Education and Training Framework Strategy 2023 - 2031, current concepts, etc.), which contain the superiors' intentions and guidelines for the definition of ministry-level directions for distance learning capacity development.

To ensure that the military and political decision-making superiors concerned with the development of distance learning capabilities get the most authentic picture of the capabilities and resources currently available, I conducted a detailed analysis using the specific criteria and evaluation systems defined in the available international models (ROSEN Model, NATO Advanced Distributed Learning Maturity Capability Model), and I involved the authentic representatives and developers of the field as well as some decision-makers in this complex analysis process, using the method of oral questioning.

The useful information provided by the comprehensive analysis formed the basis for the development of a capacity development proposal package. The formulation of the proposals for the overall distance learning capability development was based on the NATO DOTMLPFI² capability development scheme, in which the implementation steps do not follow one another systematically, but overlap each other and are implemented in close interrelation.

Based on authentic national and international models and best practices, in the

² DOTMLPFI – Doctrine, Organisation, Training, Material, Leadership, Personnel, Facilities, Interoperability

fifth chapter of the thesis, I attempted to formulate proposals for the creation of the methodological foundations of ADL training content development that meet the needs of the Hungarian Defence Forces.

I examined how the presentations during traditional face-to-face classroom work, mainly using the MS PowerPoint desktop application, and the related learning material packages (additional documentation, media elements, review questions, etc.) can be transformed into a complex learning process, which is designed by teachers, and which is optimally implemented in a web environment by making the most efficient use of the opportunities provided by the framework.

In order to capture the regulated and controlled processes of ADL training content development, by analysing the phases of the civilian ADDIE model and the Systems Approach to Training recorded in the Bi-SC Education and Individual Training Directive (BI-SC E&ITD 075-007) issued jointly by the two NATO Strategic Commands, and following the recommendations laid down in the NATO ADL Handbook, I have developed the methodological documentation of the defence forces' ADL training content development, supplemented with my own ADL training content development experiences and some examples of my best practices.

The research objective of the sixth chapter was to show possible further research directions as an optional development opportunity towards future technological achievements (virtual spaces, Big Data analysis, artificial intelligence, etc.), in order to integrate them into learning processes. The application of virtual-augmented reality as a new technology in the education and training system of the defence forces is a very recent initiative, and the access to the related authentic documentation and theoretical background is relatively limited. In this area, not only the national methodological background and procedures for the application of VR-AR technologies in military education and training are undeveloped, but also the production of effective electronic course content to be created in virtual dimensions is a significant challenge, since it requires much higher IT and programming knowledge and skills as a result of the extensive use of different graphic development software (3D model development – Blender) and programme development engines (UNITY, UNREAL).

In the course of the research, I was able to review the characteristics of virtual dimensions, the characteristics of the creation and development of digital content appearing in virtual spaces, and their possible uses in the education and training system

of the defence forces. Regarding the applicability of virtual spaces in educational and training processes, I conducted analyses not only in terms of functionality, but also in terms of the health and anatomical effects of technology, since digital content is created by "deceiving" the human senses, by artificial effects that differ from the natural environment and trigger certain reactions in the functional areas of the brain.

I also examined the virtual reality-based training systems currently in use within the defence forces, and formulated forward-looking proposals for the creation of low-budget training projects, as well as for the development of hybrid programmes that are integrally linked to distance learning programmes.

6. SUMMARY CONCLUSIONS OF THE RESEARCH

In the second chapter of the thesis, by processing the available national and international documentation background and by reviewing and systematizing the terminologies related to the field of distance education, I took the first steps towards successfully finding the place of my research in the complex system of disciplines, as well as towards identifying the focal points at which the research problems and hypotheses become testable.

From the examination of the terminological units, it became clear to me that the field of distance learning is not an independent entity isolated from the field of traditional education and training, but rather a subordinate and complementary field of it, which helps bridge time and space between the teacher and the student by applying specific principles and methods.

During the development of the second chapter, it was clearly proven that the methodological documents of education and training specifically developed for the defence forces, such as the Training Doctrine, build on the use of distance learning methods to a lesser extent; it is, therefore, advisable to revise the existing education methodological document system or to supplement it with separate appendices.

As far as terminological units are concerned, the field of distance learning is strongly under-represented in the main military educational-methodological publications (military science lexicon), therefore, it is recommended that the new units listed and detailed in my thesis be included in the agenda and the calendar plans of the committee ratifying new terminological units.

The third chapter of the thesis presents a generation-specific analysis of the personnel of the Hungarian Defence Forces, where it was proven that, based on the data from the Central Statistical Office and the information provided by the Hungarian Defence Forces General Staff Personnel Directorate, the current composition of the defence forces consists of people belonging to Generations X, Y and Z, whose learning preferences, motivations and strategies differ, not only in terms of the ability to make use of the opportunities offered by technological development, but also in terms of the differences in digital competence, not to mention Generation Alpha, who are addressed by the defence forces of the future, and for whom Information Technology and the World Wide Web are an integral part of everyday life.

In the case of the first hypothesis created on the basis of the first formulated research problem – whether the generational characteristics of the personnel of the Hungarian Defence Forces can be defined or identified based on some examination/analysis schemes from previous research concerning the field of pedagogy (such as the VARK model), which clearly determine the typical learning preferences, strategies and motivations of each generation – it has not been clearly confirmed that learning strategies and preferences can be distinguished in a generation-specific approach as far as the defence forces personnel are concerned. Using representative samples of the defence forces personnel, I assessed and examined the learning preferences, motivations and strategies specific to each generation (X, Y, Z) so that the various education and learning needs that result from the needs of the non-homogeneous learning target audience (traditional or alternative learning processes) can be identified. However, I have found that despite the generational differences, the personnel of the defence forces have multiple, and thus flexible learning preferences, with more common points than demonstrable significant differences.

Regarding the second hypothesis, the answer is clearly no, since the current education and training system of the Hungarian Defence Forces does not have a differentiated, generation-specific response that is based on the sociological and pedagogical research referred to in the previous hypothesis to the – in this case already known and smaller-scale – education and training needs, which is particularly true in the field of distance learning methods and procedures. This statement is supported by the fact that the political intention formulated at the ministry level, which appears in the education framework strategy, has not yet been translated into concrete tasks, concepts and ideas, and that the existing ideas seem less well-founded on professional

research and best practices of international military education and training.

The first hypothesis formulated on the basis of the second research problem (authentic and reality-based knowledge of the situation for decision-makers, best practices and modelling studies) has been proven, according to which the responsible military policy-makers and military decision-makers have only a partial authentic and realistic situational assessment of the of the capabilities, development opportunities, and the current and future challenges of the atypical branch of military education and training, which knowledge is derived from national or international model analysis. This professional position is supported by the analysis of atypical education and training capabilities (distance learning, e-learning), other than the traditional ones operating in an "island-like" manner, carried out according to the ROSEN model and the NATO ADL Capability Maturity Model, proving the second hypothesis and providing an authentic assessment of the existing capability components. The comprehensive proposals established in relation to the capability elements adequately support the decision-making process and contribute to the creation of a system-level atypical education and training capability serving the personnel of the entire defence forces.

In the third and fourth chapters of the thesis, I succeeded in finding answers to the research problems in relation to the target learning audience and the current state of the distance learning capability, and the related research hypotheses were also proven. To achieve the goals of effective education and training, it is not enough to know the generation-specific learning preferences of the target learning audience, their individual education and training needs, and the capabilities and possibilities of the available non-traditional, atypical training system, but it is necessary to have digital training content development methodology and procedures based on appropriate pedagogical foundations. Besides the "island-like" capabilities presented in the thesis, it can be stated that there is currently no established set of nationalised procedures for training content development process in line with national or international best practices.

The primary and most important obstacle to the creation of real training content development capability is the complete lack of a strategic, doctrinal, theoretical and methodological background. Since the capability to serve the entire personnel of the defence forces has not yet been built, this deficiency cannot be attributed to the education and training professionals, however, it is necessary to fill the gaps as soon

as possible.

To fill the gaps, predominantly based on international civilian (ADDIE Model) and military education and training planning methodology, the steps of the training content development methodology and the system of principles necessary for the implementation of sub-tasks were identified through a comprehensive study of international training content development trends and concepts, effectively functioning atypical education and training systems. I have supplemented the theoretical steps of the formulated procedure with the results and examples of best practices from my successful ADL training content development activities over the past seven years, which can be effectively integrated into the development processes in terms of functionality and cost allocation as well.

The aim of the sixth chapter was to provide a brief overview of the field of virtual dimensions, possible further directions for the development of distance learning skills, which can help to increase the efficiency of the complete education and training ecosystem, and which can also enhance the motivation of learners to actively participate in learning processes through their experiential elements.

7. NEW RESEARCH FINDINGS

1. I am the first to analyse and present the generation-specific learning preferences, motivations and strategies of the military personnel by examining and analysing representative samples from the personnel of the Hungarian Defence Forces.
2. In parallel with the study of learning preferences, I am the first to investigate and identify typical habits, such as digital content consumption habits, preferred content types, time spent online, etc., on the basis of which the personnel's individual self-training system can be developed.
3. Based on international distance learning capability development models (ROSEN Model and NATO ADL CMM), I am the first to examine and determine the current development levels of distance learning capabilities in the defence forces.

4. Across the entire spectrum of the core capability components of the NATO CMM (human resource development, IT infrastructure, data interoperability, etc.), I have introduced proposals for achieving the full operational capability – a sophisticated, autonomously operating distance learning framework with advanced data management functions connected to the human resource management system.
5. Based on the civilian training content development model (ADDIE) and the NATO Systems Approach to Training model, I have laid the groundwork for the ADL training content development methodology of the defence forces, which can adequately support the future development of digital training content.

8. RECOMMENDATIONS AND THE APPLICABILITY OF RESEARCH FINDINGS




During the documentation analysis and sub-research activities, I found that neither the necessary time, nor the required space is available for the full and all-encompassing exploration and analysis of each research problem, as a result of the maximum length limitations.




The analysis of the distance learning ecosystem according to the NATO CMM is proposed to be further developed into a systemic task, even to the level of a Ministry of Defence-Hungarian Defence Forces working group, as the analysis I have conducted reflects the professional opinions and experiences of a limited group of experts and commanders, sometimes with subjective evaluation indicators. The experiences of the working group that created the concepts for the development of distance learning capabilities show that the full potential of the framework that provides virtual space for future distance learning courses can be exploited effectively and with the best possible cost allocation along this development philosophy.

The methodological foundations of ADL training content development, as I have described and formulated them, can be effectively applied to the implementation of digital content development tasks at the current level of technological development.

Due to the development of technological processes, new possibilities and solutions, as this field is undergoing very dynamic changes in a short time span, it is recommended that the methodological principles and procedures are reviewed more frequently than usual and adapted to the given level of technological development, as well as to national and international trends and best practices in training content development.

9. LIST OF OWN PUBLICATIONS

1.  Varga Tamás (Varga Tamás Oktatás, képzés és kiképzés)
NKE/HHK/Hadtudományi Doktori Iskola
The innovative use of distance-learning training materials in virtual reality (VR) spaces, and the opportunities to apply the further dimensions of virtuality (augmented and mixed reality – AR/MR) in military education and training and in tactical procedures
DEFENCE REVIEW: THE CENTRAL JOURNAL OF THE HUNGARIAN DEFENCE FORCES (2060-1506): VOL. 151 (NR. 1-2) pp 100-116 Paper 2060-1506. (2023)
Nyelv: Angol
Hadtudományi Bizottság IXGJO HTB [1901-] A hazai
Közlemény: 35164273 | Nyilvános Forrás | Folyóiratcikk (Szakcikk) | | Tudományos | kézi felvitel
Utolsó módosítás: 2024.08.08. 20:02 Varga Tamás (Oktatás, képzés és kiképzés)
2.  Varga Tamás (Varga Tamás Oktatás, képzés és kiképzés)
NKE/HHK/Hadtudományi Doktori Iskola
Gondolatok a katonai értékek változásáról az oktatás-képzés és kiképzés terén
HADTUDOMÁNYI SZEMLE (2676-9816 2060-0437): 12. évfolyam (2019) (3. szám) pp 209216 Paper 2676-9816. (2019)
Nyelv: Magyar
Hadtudományi Bizottság IXGJO HTB [1901-] B hazai Állam- és Jogtudományi Bizottság IXGJO ÁJB [1901-] D hazai
Közlemény: 35164269 | Nyilvános Forrás Duplumgyanú | Folyóiratcikk (Szakcikk) | | Tudományos | kézi felvitel
Utolsó módosítás: 2024.08.08. 19:54 Varga Tamás (Oktatás, képzés és kiképzés)
3.  Varga Tamás (Varga Tamás Oktatás, képzés és kiképzés)
NKE/HHK/Hadtudományi Doktori Iskola
A „Green on Blue” események vizsgálata, és felkészítés – események kezelésére a Magyar Honvédségben
SEREG SZEMLE: A MAGYAR HONVÉDSÉG ÖSSZHADERŐNEMI PARANCSNOKSÁG FOLYÓIRATA (2060-3924): XVI. évfolyam (2018) (2. szám) pp 169174 Paper 2060-3924. (2018)
Nyelv: Magyar
Hadtudományi Bizottság IXGJO HTB [1901-] D hazai
Közlemény: 35164267 | Nyilvános Forrás | Folyóiratcikk (Szakcikk) | | Tudományos | kézi felvitel
Utolsó módosítás: 2024.08.08. 19:46 Varga Tamás (Oktatás, képzés és kiképzés)

4.  Varga Tamás (Varga Tamás Oktatás, képzés és kiképzés)
 NKE/HHK/Hadtudományi Doktori Iskola
 Hagyományos oktatási módszerekre optimalizált komplex tananyag távoktatási tananyaggá történő transzformálásának, fejlesztésének lehetőségei, tapasztalatai
 HADTUDOMÁNYI SZEMLE (2676-9816 2060-0437): 12. évfolyam (2019) (4. szám.) pp 173186 Paper 2060-0437. (2019)
 Nyelv: Magyar *Hadtudományi Bizottság IXGJO HTB [1901-] B hazai Állam- és Jogtudományi Bizottság IXGJO ÁJB [1901-] D hazai*
 Közlemény: 35164260 | Nyilvános Forrás | Folyóiratcikk (Szakcikk) | | Tudományos | kézi felvitel
 Utolsó módosítás: 2024.08.08. 19:21 Varga Tamás (Oktatás, képzés és kiképzés)
5.  Varga Tamás (Varga Tamás Oktatás, képzés és kiképzés)
 NKE/HHK/Hadtudományi Doktori Iskola
 A multi-/interkulturális nevelés kihívásai a XXI. században egy magyar mentormisszió tapasztalatai tükrében
 SEREG SZEMLE: A MAGYAR HONVÉDSÉG ÖSSZHADERŐNEMI PARANCSNOKSÁG FOLYÓIRATA (2060-3924): XVI. évfolyam (2018) (1. szám) pp 82-87 Paper 2060-3924. (2018)
 Nyelv: Magyar
Hadtudományi Bizottság IXGJO HTB [1901-] D hazai
 Közlemény: 35164257 | Nyilvános Forrás Duplumgyanú | Folyóiratcikk (Szakcikk) | | Tudományos | kézi felvitel
 Utolsó módosítás: 2024.08.08. 19:10 Varga Tamás (Oktatás, képzés és kiképzés)
6.  Varga Tamás (Varga Tamás Oktatás, képzés és kiképzés)
 NKE/HHK/Hadtudományi Doktori Iskola
 Integrált Békeművelési Felkészítés Támogató Rendszer kialakítása, bevezetése, előkészítésének tapasztalatai
 SEREG SZEMLE: A MAGYAR HONVÉDSÉG ÖSSZHADERŐNEMI PARANCSNOKSÁG FOLYÓIRATA (2060-3924): XIII. évfolyam (2015) (4. szám) pp 86-102 Paper HU ISSN: 2060-3924. (2015)
 Nyelv: Magyar
Hadtudományi Bizottság IXGJO HTB [1901-] D hazai
 Közlemény: 35164255 | Nyilvános Forrás | Folyóiratcikk (Szakcikk) | | Tudományos | kézi felvitel
 Utolsó módosítás: 2024.08.08. 19:02 Varga Tamás (Oktatás, képzés és kiképzés)

Other publications:

- VARGA Tamás (2020): Az e-learning, mint távoktatási módszer, eljárás fejlesztési irányai hazai és nemzetközi viszonylatban (Milton Friedman Egyetem - befogadó nyilatkozat);
- VARGA Tamás (2020): Távoktatási képességfejlesztés irányai a Magyar Honvédségben, az MH Távoktatási Központ, mint intézményesült képesség kialakításának kérdései (Honvédségi Szemle – befogadó nyilatkozat);
- Kompetenciák fejlesztésének lehetőségei távoktatási dimenziókban (Tématerületi Kiválósági Program 2020 / könyvkiadvány).

10. THESIS AUTHOR RESUME

Lieutenant Colonel Tamás Varga was born in Sajószentpéter, Hungary on 25 April, 1981. After his primary school studies, he graduated from Lenkey János Military Secondary School in Eger in 1999. Following a successful admission procedure, between 1999 and 2003, he continued his studies at the Zrínyi Miklós University of National Defence, Bólyai János Military College of Engineering, Faculty of Armour Mechanical Engineering. In 2003, in parallel with his graduation as a mechanical engineer, he was appointed to his first officer position as a lieutenant at the Hungarian Defence Forces 34 Bercsényi László Reconnaissance Battalion in Szolnok. During his military career, he has been deployed five times on missions, all five times to Afghanistan.

In 2017, he completed the Military Leadership course at the National University of Public Service, Faculty of Military Sciences and Officer Training; and in 2022, he completed the General Staff Course for senior military leaders.

After his university studies, he was admitted to the faculty's Doctoral School of Military Sciences, and his research interests include the regulation and motivation of learning processes and strategies during education and training. The doctoral school issued his pre-degree certificate on August 31, 2021.

He has C1-level knowledge of English (NATO STANAG 3.3.3.3) and B2-level knowledge of German (ARMA).

Lieutenant Colonel Tamás Varga is currently a senior officer of the Hungarian Defence Forces Territorial Defence Forces Command, Training Directorate.