DEVELOPMENT AND PERSPECTIVES OF THE STATE BORDER GUARD E-LEARNING SYSTEM

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Abstract. *In this article, the author focuses on the development of e-learning in the State Border Guard of the Republic of Latvia. The author gives an idea of the world trends in the development of e-learning, the features and possibilities of using it in the State Border Guard of the Republic of Latvia. Author indicates possible options for the development of e-learning, as well as difficulties and possible solutions. This research is lengthy and implies further research of the use of e-learning in the State Border Guard of the Republic of Latvia.*

Keywords: *development, e-learning, e-learning system, perspectives, trends*

Introduction

The State Border Guard College of the Republic of Latvia (hereinafter – College) is an educational institution providing education and professional training of border guards for the State Border Guard of the Republic of Latvia (hereinafter – SBG). In the college, various methods and forms of training, including e-learning are used.

The aim of this paper is to research and evaluate implementation of e-learning in the College and SBG, as well as giving suggestions for improving the use of e-learning. In order to improve the quality of the use of e-learning, in the paper, e-learning development trends are considered.

This research is lengthy and implies further research of the use of e-learning in the SBG and College. Research period: 2011 – 2018. Research methods: meta-analysis, graphical and descriptive-quantitative methods have been used during research period.

Development of the SBG e-learning system

In order to systemize the collection of existing study materials and supplementing it with new study materials in electronic form, the College Distance Education System (in Latvian language – *Tālmācības Informācijas Sistēma*, hereinafter – TIS) was introduced in 2008.

The College's TIS is based on Modular Object-Oriented Dynamic Learning Environment (hereinafter - MOODLE) learning management system (hereinafter - LMS).

The active development of e-learning in the College using TIS began in 2014 and continues to this day. During this time, TIS has evolved from a

library with educational materials for students' needs to a full-fledged e-learning system, on the basis of which various training courses for border guards has been provided.

After delivering the course, an anonymous survey is conducted among the trainees with the aim, among other things, to identify the shortcomings of e-learning. The survey results then are further taken into account in the process of improving e-learning courses (Spridzāns, Pavlovičs, 2016).

SBG e-learning system is divided in two parts:
- first one is intended for the College students, where they have the opportunity to use TIS resources on both the SBG intranet, and to connect to the resources of public networks. It contains range of teaching materials, including electronic text documents, presentations, etc., as well as electronic tests which the lecturers themselves prepare and place in certain sections;
- second one is full-fledged e-learning system, which is used as the base to provide various training courses for the border guards.

Both divisions' materials are located on a TIS server that is connected to the Internet. Indeed, the system users have the opportunity to view or download the necessary information on their computer and to conduct tests electronically using an Internet browser.

In 2014, the College developed a plan for developing an e-learning system (approved on 08.04.2014. with the College's order No.176 „On e-learning"). Within the framework of the measures stipulated in the plan, the College renovated the hardware, a new server was purchased and configured to maintain the e-learning system, and the speed of the public Internet connection increased. During the year, a training was provided to the lecturers of the College on the possibilities of using the e-learning system. The teachers actively participated in preparation of methodological materials, test papers, and for conducting lessons in the e-learning system. At the beginning of 2015, the TIS server was connected to the public Internet network. During period 2011-2014, an training course for qualification improvement "Professional English language terminology e-studies" was implemented in the e-learning system.

In 2015, implementation of the measures for the development of e-studies at the College and the SBG continued. In result, three e-qualification improvement programs were developed and implemented (Figure 1). The placement of methodological materials in the e-learning system within the framework of the first level professional higher education program and training of teachers and students e –environment has been provided.
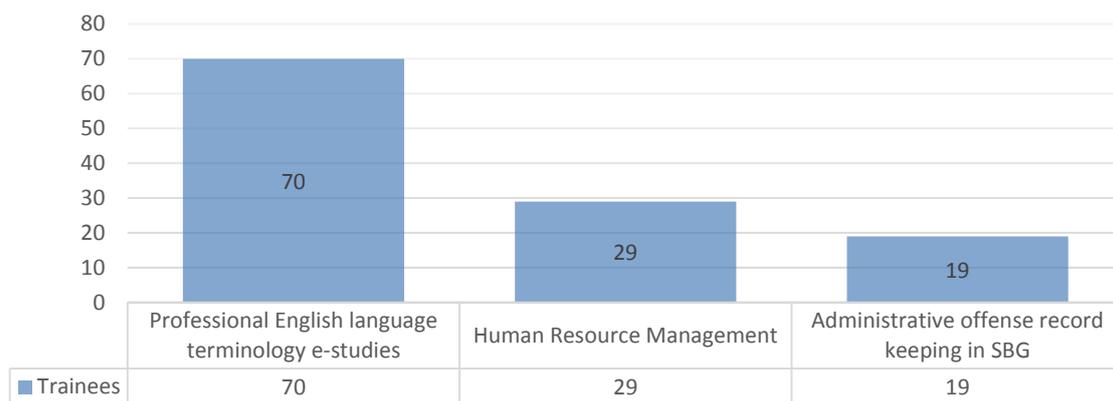
Figure 1. Qualification improvement programs implemented in College in year 2015 (Source: compiled by the author)

By continuing to work on the development of the College's e-learning system in 2015, the College order was issued (the college order No.48 „On e-learning in 2015" approved on 28.01.2015.; amended on 27.02.2015. by the College order No.99). According to the order, the main task in 2015 was defined: to prepare methodological materials and place those in the College e-learning system for students of the first level professional higher education study program "Border Guarding". In addition, in accordance with the order, the following measures were implemented:

- the server was connected to the public Internet;
- the user's requisites for the 1st and 2nd year students of the College as well as for the trainees of the qualification improvement program "Professional English language terminology e-studies" were created;
- lessons on the possibilities of using the e-learning system for College teachers and students were conducted;
- the materials of the "Professional English language terminology e-studies" qualification improvement program were partially transferred to the College's e-learning server, and the implementation of the program was initiated through the College e-learning server.

In 2016, the College issued the order (the college order No.52 „On e-learning in 2016" approved on 29.01.2016.) According to the order, the following measures were implemented:

- the college teachers were provided with new laptops with access to the public Internet;
- the IP address of the college e-learning system was included in the list of authorized Internet resources of the Ministry of the Interior's proxy server;
- computer equipment was purchased and replaced at the College computer class;

- the structure of study courses and qualification improvement courses/ programs in the College e-learning system were updated/supplemented;
- several qualification improvement programs in the form of e-learning were developed/ implemented, including "National Guards obligations and action at the time of the temporary restoration of border control at the internal borders" (hereinafter – National Guards obligations and action) (Figure 2).
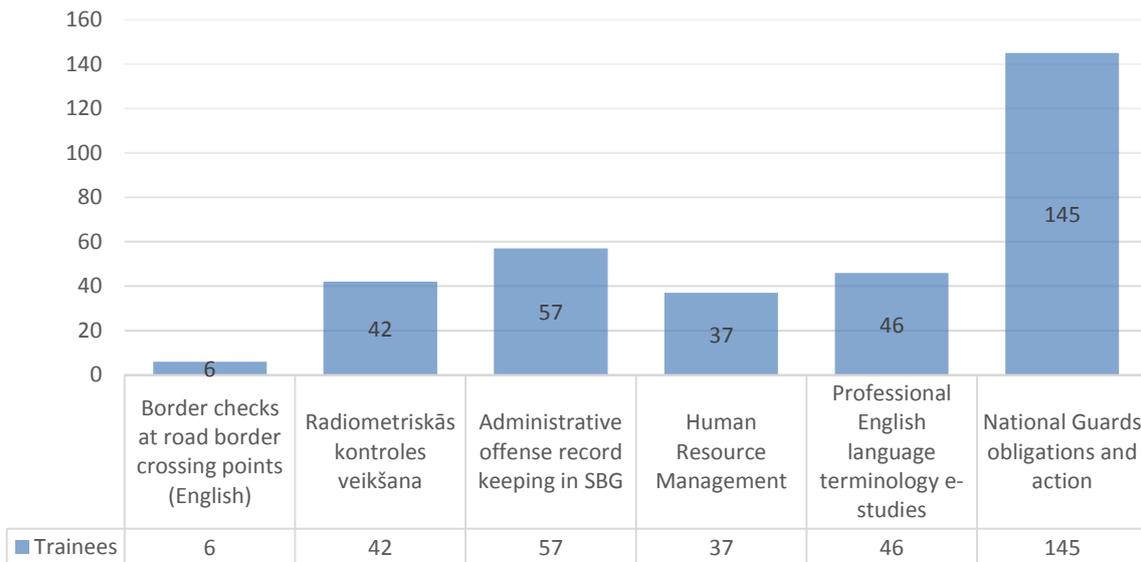
	Border checks at road border crossing points (English)	Radiometriskās kontroles veikšana	Administrative offense record keeping in SBG	Human Resource Management	Professional English language terminology e-studies	National Guards obligations and action
Trainees	6	42	57	37	46	145

Figure 2. Qualification improvement programs implemented in the College in 2016 (Source: compiled by the author)

In 2017, the following measures were implemented:
- the structure of study courses and qualification improvement courses / programs in the College e-learning system updated/ supplemented;
- several qualification improvement programs in the form of e-learning developed/ implemented (Figure 3.1 and 3.2).
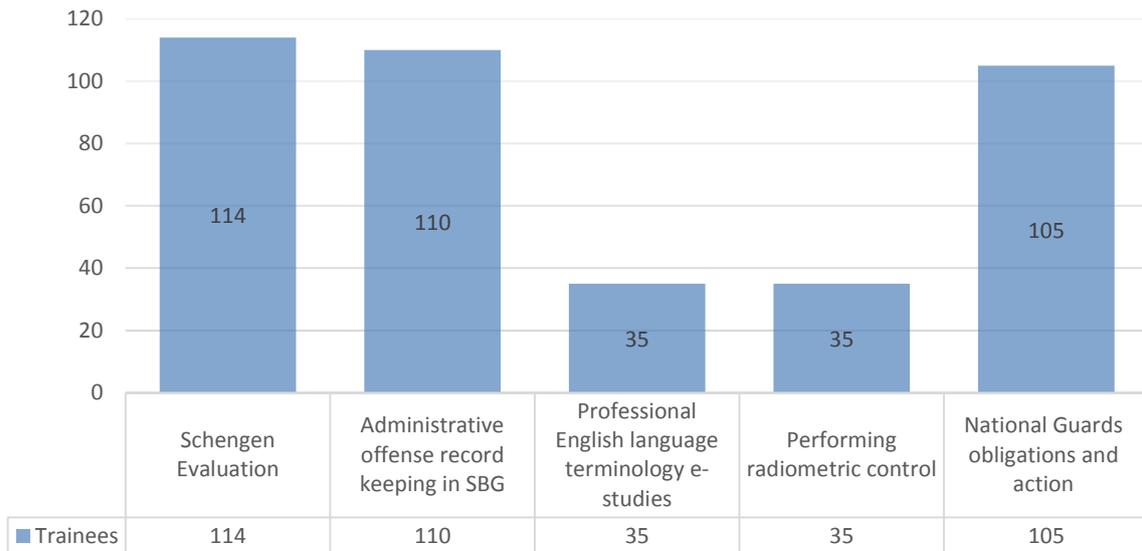
Figure 3.1. Qualification improvement programs implemented in the College in 2017 (continued in Fig. 3.2)
(Source: compiled by the author)

	Schengen Evaluation	Administrative offense record keeping in SBG	Professional English language terminology e-studies	Performing radiometric control	National Guards obligations and action
Trainees	114	110	35	35	105

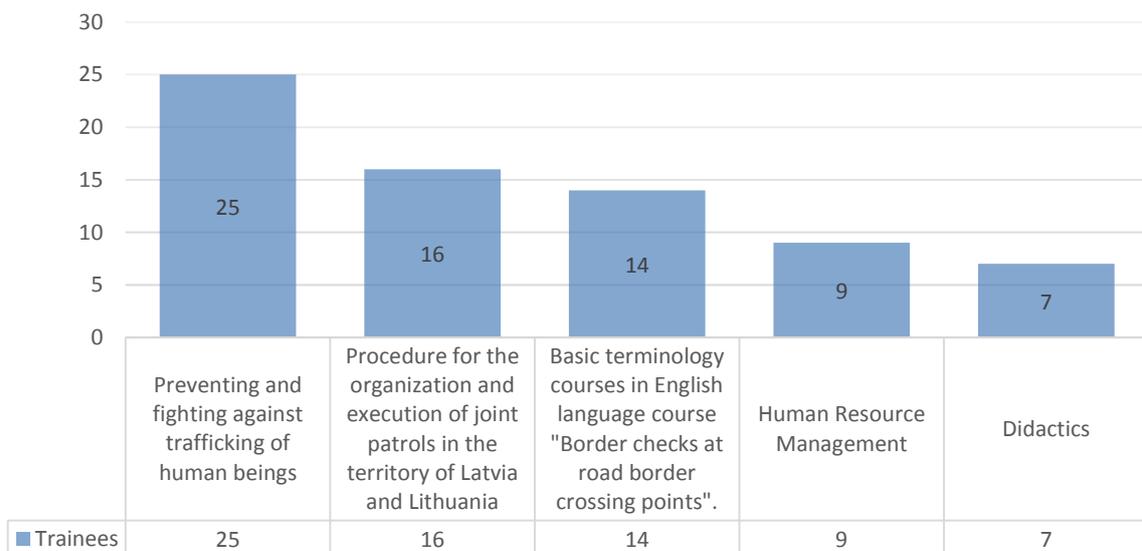|	Preventing and fighting against trafficking of human beings	Procedure for the organization and execution of joint patrols in the territory of Latvia and Lithuania	Basic terminology courses in English language course "Border checks at road border crossing points".	Human Resource Management	Didactics
Trainees	25	16	14	9	7

Figure 3.2. Qualification improvement programs implemented in College in 2017 (continued from Fig. 3.1)
(Source: compiled by the author)

In 2018, some qualification improvement programs in the form of e-learning are developed/ implemented already (Figure 4), still the implementation will be continued. It should be noted that the work plan of the College for 2018 (approved on 08.01.2018. by the College order No. 73) includes paragraph "Development of e-learning and interactive methodological teaching materials".
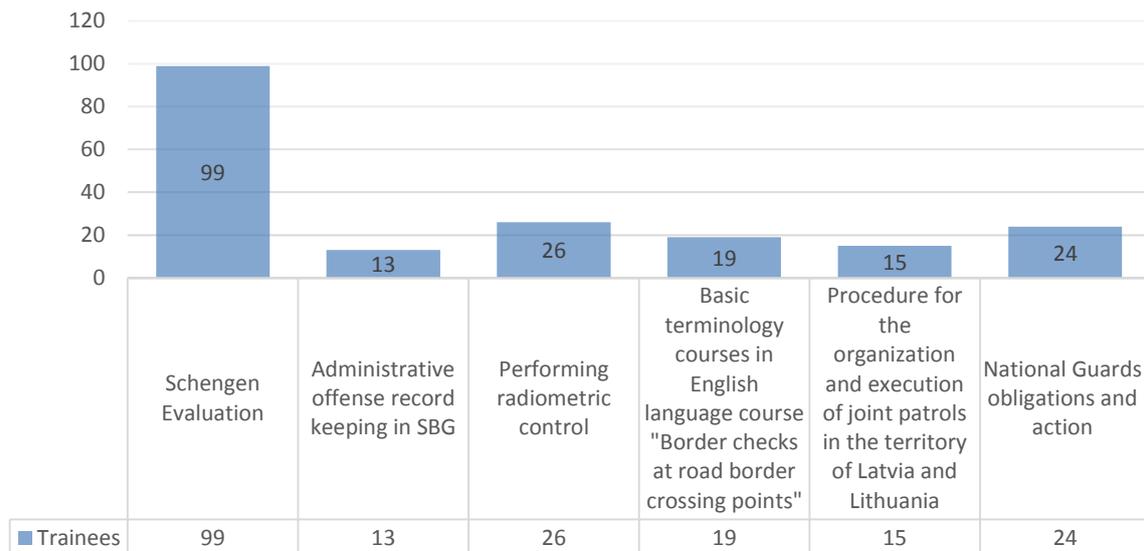
**Figure 4. Qualification improvement programs implemented
in the College in 2018 (January to March)**
(Source: compiled by the author)

Based on data on the number of qualification improvement programs, as well as on the number of people trained, it can be concluded that since 2014 the number has increased. In 2015, share of the students studying in e-learning mode among all trainees of the qualification improvement programs in the SBG was 6% (118 to 1969), in 2016 – 16% (333 to 2079), in 2017 – 28% (470 to 1656) (State Border Guard College, 2018).

Trends in development of e-learning

In order to expand the possibilities of using e-learning in SBG, the author has studied the latest world trends in the development of e-learning. It should be noted that various sources in general note several common areas of development of e-learning which are:

1. Mobile training

Mobile training is experiencing an unprecedented rise. Now, thanks to the fact that most educational portals have adapted their sites to the multi-platform mode or have created corresponding applications for smartphones, the mobile training has acquired considerable flexibility. This trend is increasing, and we can expect a wider application of mobile training in all areas. Students will be able to access online testing of knowledge, listen to audio lectures and watch educational short videos or presentations where they are comfortable (Pandey, 2017).

2. **Microlearning**

Microlearning is defined as providing students with small pieces of teaching material instead of a longer form of modules or courses. It can be

interactive videos, podcasts, quizzes and much more. Their length is the key factor. Breaking a big topic into several short videos explaining one of the components helps to ease up the complex learning process for an individual in a very effective manner.

This makes sense, since the maximum attention concentration level of a person falls for the first five minutes. With a large volume of material, there is a risk of "drowning" in the content (Howe, 2017; Jill, 2018; Pandey, 2017; Senapati, 2018).

3. **Gamification** (Jill, 2018) (Pandey, 2017) (Senapati, 2018)

Instead of writing something, reading something or listening, most people rather would like to play, so teachers often resort to the use of game mechanics to train their students.

Gamification of education today is a powerful tool for increasing the index of involvement in the educational process. The fact is that all these people perfectly represent what levels are, pumping, quests, rewards, achievements.

There is a tendency in the transition from simple badges, ratings, experience points to more thoughtful integrations of game mechanics into educational processes - sociality, real bonuses for achievements, short milestones, etc. (Jill, 2018; Pandey, 2017; Senapati, 2018).

4. **Cooperation and social learning**

Social education – learning from others. The main element of this method is interaction of students. Teacher can stimulate this process by creating virtual communities that will serve as a forum where people in an informal setting share their experience, understanding of the problem and ideas for their solution.

Discussions of the material contribute to its better assimilation, and allows teacher to quickly collect feedback and form meaningful connections within the team (Howe, 2017; Jill, 2018; Pandey, 2017; Senapati, 2018).

5. **Virtual Reality and Augmented Reality**

The use of virtual reality opens up many new opportunities in education and training which are too complex, time-consuming or expensive with traditional approaches, or all at the same time.

There are several main advantages of using Virtual Reality and Augmented Reality technologies in education: visibility, security, involvement, focus and virtual lessons (Howe, 2017; Jill, 2018; Senapati, 2018).

6. **Video Learning and Webinars**

Video lectures give the teacher a wide range of tools for managing the cognitive activity of trainees and rich opportunities for implementing the content of training.

Especially useful is the use of video lectures in e-learning and for the activation of independent work of students in full-time education. However, this effect is achieved only when the most qualified and active teachers participate in creating video lectures.

In addition to video learning, students can take advantage of webinars to ask questions, engage in different activities and even solve problems (Howe, 2017; Pandey, 2017).

All of the above tendencies have their own peculiarities, advantages and disadvantages. Nevertheless, the author believes that in order to develop e-learning in the SBG, the latest trends in this field should be considered in more detail. It should be noted that, already now, there is a tendency to more actively develop the use of video learning in the SBG. One of the examples is the training video, recently created in the SBG and College, to work with the information system of the State Border Guard and associated information systems.

Conclusions and suggestions

1. In the course of development and in the result of using of e-learning system in the SBG since 2014, the number of qualification improvement programs and personnel trained in the e-learning format has increased.
2. In the period from 2011 to March 2018, 10% of the trainees of SBG completed qualification improvement programs in the format of e-learning.
3. Due to the fact that the materials for the first and the second year students of the College were placed in e-learning system of the SBG in 2015 and 2016 respectively, it is necessary to update these materials, as well as to develop a mechanism to ensure regular updating of the content in the e-learning system of the SBG.
4. To expand the possibilities of using the e-learning system of the SBG, explore the possibility of applying the latest trends in e-learning, including the use of video learning and webinars.
5. Taking into account the tendency of more intensive use of the e-learning system in the SBG, it is necessary to take prompt care of the relevant technical (including computer and video equipment) and organizational (including staff training) resources.

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