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EXPERIENCES OF USAGE OF E-LEARNING MATERIALS AND B-LEARNING METHOD IN SOME MEMBER STATES OF THE COMMUNITY PART 1

AZ ELEKTRONIKUS TANANYAGOK ÉS A B-LEARNING MÓDSZER ALKALMAZÁSÁNAK TAPASZTALATAI A KÖZÖSSÉG NÉHÁNY TAGÁLLAMÁBAN 1. RÉSZ

Az Európai Unió 2008-ban ünnepelte a vámunió 40 éves évfordulóját. A vámunió magában foglalja például az áruk és szolgáltatások szabad áramlását, a közös vámtarifa és a közös vámjogszabályok alkalmazását, amelyhez szükség van az oktatás, képzés területén is egységes gyakorlat, közös képzések és tananyagok kialakítására. Az EU a vám programokban pontosan meghatározza az oktatással kapcsolatos feladatokat is, például a Vám 2013 programban az elektronikus tanulási környezet biztosítását, illetve a már meg lévő elektronikus tananyagok aktualizálását. Néhány uniós tagállam nagyon jelentős tapasztalatokkal rendelkezik az elektronikus tanulási környezet és a b-learning módszer alkalmazása területén, más tagállamok pedig Magyarországhoz hasonlóan a fejlesztési folyamat különböző periódusaiban állnak. Mindkét csoportba tartozó országokban nagyon hasznos tapasztalatokat szereztem, amelyek elősegítették a hazai fejlesztési folyamatokat. Az első részben két olyan ország oktatási rendszere kerül bemutatásra, amelyek jelentős tapasztalattal rendelkeznek a b-learning módszer alkalmazása területén: Németország és az Egyesült Királyság.

The European Union celebrated the 40th anniversary of the customs union in 2008. The customs union means among others the free circulation of goods and services, application of the common tariff and customs legislations, for which you need common practice in trainings and common trainings and training materials. Within the Customs Programmes the EU has exactly determined the tasks related to the trainings. For example within the Customs 2013 Programme the EU determines the application of e-learning environment, and the updating of the actual e-learning materials. Some member states have significant experience on the application of e-learning environment and b-learning method, some other member states, like Hungary are on different levels of the development process. I have collected very useful experience in the countries of both groups, which have furthered our national development process. In the first part there is presented the training system of two countries that have significant experience on the application of b-learning method: Germany and the United Kingdom.

The treaty founding the European Community defines that certain measures, relating to the harmonisation of the legal, statutory and administrative decrees of the member states shall be made with the goal of creating and operating of an internal market¹. As the European Community has formed a customs union since July 1 1968 this entails the free circulation of goods and services and the application of a common customs tariff and that of common customs laws. In order for the unified legislation to take full-scale effect it is imperative that unified practices, common trainings and curricula are set up in the field of education and training as well. As a means to this end the Community has, since 2002, been elaborating plans for five-year periods in which they determine the most important principles and goals, the tasks to be carried out and the instruments required for their execution. As a result, more precise and more specific decisions have been made in the field of training the members of customs or-

¹ Article 95 of the Treaty establishing the European Community

organisations than in the field of the Community's general educational policy². The Hungarian customs administration had had the chance to join the Customs 2002 programme before May 1 2004 but since then it has been their duty to complete the tasks defined in these (Customs 2007 and Customs 2013) projects. In the framework of the Customs 2007 Programme a new training-related task was set which is "aimed at the creation of training standards required for organised co-operation among educational institutions, besides setting up joint educational programmes that ensure the supply of knowledge and skills indispensable for complying with the regulations of Community customs laws. Wherever it is feasible such trainings, which can be attended by colleagues of every member state, shall be established thus promoting the creation of a common practice"³. As a new element of the Customs 2013 Programme "the customs administrations were tasked with the creation of an electronic learning environment and with updating the electronic curricula already available."⁴

The Hungarian customs administration had not applied any electronic curricula before the country's accession to the EU, neither had it had an electronic learning environment and thus it lacked the experience necessary for carrying out programmes defined in the Customs programmes. The conferences and sessions organized within the framework of the Customs programmes make it possible for each member state to present their educational developments, educational systems and also, to share their observations. As could be gathered from these conferences Germany, the Netherlands, Great Britain and Italy have the widest range of experiences in the speciality of employing an electronic learning environment, besides other countries such as Finland, Poland and Lithuania that have recently introduced very significant developments.

Exploiting the possibilities ensured by the agreement on further training, set out in the Customs 2007 and Customs 2013 programmes and further promoted by the agreement made between the Hungarian and the German customs administrations, there have been various opportunities to take part in study tours and it is in this study that we have collected our discoveries of these tours.

GERMANY

The first study tour took place 22-27 November 2006 in Munster, in the Training Centre of the German Federal Financial Administration with the topic of introducing and applying a b-learning educational system in the German system of financial training, and also, with a focus on the role and methodology of field training.

THE GERMAN FEDERAL SYSTEM OF FINANCIAL TRAINING

The middle-level training of customs officers takes place at the eight financial directorates (on a regional level) while the training resulting in a higher level diploma is assigned to three colleges (Munster, Plesso and Siegmaringen).

The training system of the German customs administration had the following problems to face and solve during 2006:

- The posts in the public sector were decreasing leading to a decrease in numbers, re-organisation and re-grouping.
- The colleagues affected by the re-organisation had to be trained for their new tasks.
- As there was a high level of fluctuation within the corps the serious problem of integrating colleagues into their new posts also had to be addressed in the course of trainings.

In order to resolve these problems, a fast and efficient form of training had to be shaped up besides quickly and clearly defining the tasks to be carried out by the colleagues. The knowledge, the information had to be taken out to the workplace ('Let me learn where I work.') and in such a form that the colleagues would be able to use them in practice too. It is obvious that contact trainings cannot be omitted from an educational strategy but it is also important for managers to ensure that colleagues not present at their workplaces will spend their working hours in a useful way-with learning.

² Zsolt Dézsi: The influence of the European Union on the training of customs officers. 2008

³ Ibid.

⁴ Ibid.

With regard to the b-learning method this called for short, clear-cut and transparent learning modules, and also for such a knowledge-management system that is capable of realizing and transferring them. On the one hand knowledge-management means establishing the medium of the information and also a speedy and efficient form of communication within the management. Also, for the continuous evolution and development one is required to constantly evaluate and develop the programmes.

However, during the introduction of the method and in the course of developing learning material the following problems surfaced:

- It is important that the colleagues want to learn with this method at their workplaces.
- It is also of importance that the colleagues not participating and the management are aware of and accept this method.
- The learning material should not be too extensive.
- The learning material should present relevant information.
- Theory and practice should be harmonised.
- At the end of e-learning courses there are no exams so there is a need for a conventional check upon acquisition.
- Simple and intelligible programmes should be employed.

The personal and material resources required for the introduction of the b-learning method consist of a knowledge base, available management and students, multimedia-compliance, proper network configuration, adequate bandwidth, easy use, cost-efficiency and the return of investments.

In the training system of the German customs administration the educational concept is divided into three stages, that is, into a top-management, a management and a middle-level career stage.

It can be said of all levels that they have to realize methodological competency, social competency, self-based learning competency and the competency relating to a specific professional field.

There are three kinds of basic training in the German customs administration:

1. The basic training is shorter for those with a university degree and applies to about 1% of the 40.000 strong staff.
2. The higher-level training is a three-year college course during which the students are made civil servants and at the end of the course most of the students with a degree (99%) stay with the corps.

The three-year training is divided as follows:

Term (week)	Type of training	Location
1–3	General rules	Appointed place of duty
4–31	General rules of finance I (Theory)	College
32–50	Practice I. (general foreign-language training)	Offices or educational centres
51–72	Professional academic training II. a	College
73–84	Practice II. a.	Offices
85–101	Professional academic training II. b	College
102–139	Practice II. b.	Offices
140–152	Professional academic training II. c	College
153–156	Exams	

3. The setup and syllabus of the middle-level training is very similar to that of the college training but its time span is two and a half years and at the end of the training the college issues a certificate. This level of training takes place at the Financial Directorates.

The practical training takes place at the offices or at the training centres with the guidance of a head of practice. During the practical training the students get acquainted with the technical process of customs clearance and document-handling. The head of practice is in continuous contact with the trainer.

The further trainings can be held on regional and on federal levels depending on their topics and the scope of students called in. Each of the Financial Directorates makes their regional study catalogues available on intranet, listing the professional fields, subjects and dates and also, when further trainings are held. This way one can decide what further trainings the colleagues should take part in. Participation can be either mandatory or voluntary but in either case one needs a recommendation from their superiors.

The Directorates have a separate apparatus for the basic level training as well as for the further trainings. There are altogether 12 customs training centres and 4 customs tech training centres. The tech training centres, apart from practical training, have goods classification, lab investigation and compulsory tariff-consultation set as their primary tasks. Those working in the regional training centres have to partake in a 10-week course and they also have to take part in regular further trainings.

THE PROCESS OF ESTABLISHING E- AND B-LEARNING EDUCATIONAL SYSTEMS

The German customs administration started examining the possibility of introducing an e-learning educational method in 1996. As the first step experts were asked and they estimated the costs of the introduction of an e- and b-learning system between €20-100 million. It is obvious from the estimate that although the range of expenses is very wide even the lower end of the scale would have meant a tremendous investment from the customs administration. As a consequence the German customs administration decided, using certain parts of the experts' approximation, to introduce e- and b-learning in the training of customs officers gradually, with the basic principle of increasing efficiency by IT support.

As a back-up a new project called IT@F (information technology in the fields of trainings and further trainings) was formed, the first phase of which (IT@F I.) concluded December 31st 2005.

PROJECT IT@F I.

In the framework of Project IT@F I. first smaller electronic curricula were developed with the assistance of trainers, which were later, in order to optimize learning and teaching methods, tested and approved by students. The development of electronic learning material raised the question of royalties. The German customs directorate offered rewards other than material bonuses, such as working-hour allowances, to colleagues taking part in the development.

In order to carry out tasks set out in the project three sub-projects were created.

1. The IT sub-project was responsible for setting up the proper informatics background. The technical equipment required was available but the build-up of an adequate network was hindered by bureaucracy even within the college. This was due to the fact that the building was rented and for all conversions one needed licences from various consulting agencies and also from the maintainer of the building.
2. The technical sub-project was responsible for the informatics equipment, the technology, the maintenance and for the applications as well.
3. The users' sub-project was responsible:
 - for defining the goals, the resources required and the evaluation;
 - for scheduling the introduction (the modules are introduced gradually and not at the same time at each General Directorate);
 - for preparing the training chart, based on previous experiences; and also
 - for realizing the whole plan.

Project IT@F I. briefly stipulated its own activity in three steps:

1. Preparing electronic learning material in the field of drilling (basic training) and also, supporting presentation lectures in the field of further trainings;

2. Harmonising academic and practical knowledge;
3. Utilising electronic learning material in the field of refreshment courses as well.

For developing electronic learning material one needs a software, specially designed for the purpose, that is, an LMS, a Learning Management System. There are several products on the market for which one has to pay a substantial amount of money (e.g. Microsoft Class Server) but there are some open source software as well (e.g. ILIAS, MOODLE) that are as adequate for developing electronic learning materials as any other. In order to save money, the German customs administration opted for an open-source programme, ILIAS which is also available in Hungarian.

Subproject 3 was set up to define the harmonisation of theory and practice, based on data gathered from analyses and experiences. On the one hand this meant defining the proportion of academic and practical teaching and on the other hand the ways to put theory into practice.

PROJECT IT@F II

Project IT@F I was not successful with regard to applying electronic learning materials in refreshment courses so Project IT@F II was formed with the following goals:

- Creating the infrastructure required for refreshment courses;
- Setting up the network on all three colleges and at the hostel;
- Creating a network that is accessible from home as well;
- Designing the overall concept for b-learning.

COMPETENCE CENTRE

For the wide-spread use of e- and b-learning applications a Competence Centre was established the most important functions of which were the training for the use of multimedia software, organising information-sharing gatherings, counselling for trainers, organising workshops for trainers and students, helping specialisation in given specialities; assistance, especially in the first stages, evaluation; creating and placing images and graphics on certain platforms and also, setting up a multimedia centre.

THE UNITED KINGDOM

AN INTRODUCTION TO THE BRITISH CUSTOMS ADMINISTRATION AND ITS PLACE OF EDUCATION

The British customs administration (HMRC⁵ henceforth) has 10 general directorates one of which, the HR department is tasked with the supervision of education. The department is further divided into two sections: one deals with developing curricula and the other executes tasks related to human resources management and education.

The HMRC prepares the national training scheme based on the needs of the general directorates yearly. Based on the needs indicated it is the task of the Learning Business Partners to assess and calculate the financial and other needs of education. That done they set up a priority list with regard to the financial resources that will form the base of the final training plan. As the trainings carried out and the curriculum management are self-financed, financial needs stem from the following:

- travel and accommodation expenses;
- inviting guest lecturers;
- the needs of curriculum development (software and other tools).

The trainings take place at regional training centres in the following locations: Lincoln, Leeds, Liverpool, Manchester, Glasgow, Edinburgh, Dover and London.

THE STRUCTURE AND OPERATION OF THE EDUCATION DEVELOPMENT CENTRE

The colleagues at the education development centre can be classified into four groups: contact persons, managers; planning and development personnel; staff related to issuing/circulation; administrative staff.

⁵ HM Revenue and Customs

CONTACT PERSONS

The primary task of contact persons is to assess the educational needs related to a specific subject as well as managing contact between Learning Business Partners and curriculum designers. They also have to organise and supervise curriculum-development projects. In the course of a curriculum development project the partakers meet two or three times in the form of a work group of usually not more than 10 people. These meetings are attended, apart from the Learning Business Partners, by the persons responsible for the specific fields and also by the curriculum-developers. During the first meeting the main functions, deadlines, responsibilities are defined along with the following questions of strategic importance:

- the proper definition of the topic and structure of specific trainings;
- defining the target group;
- marking off the most important phases;
- methods of development;
- defining the guided trainings and the workbooks;
- defining other educational needs; (e-learning, PowerPoint, videos, classroom activities).

Related to the project a document entitled "Educational Requirements" is compiled which includes the key aspects of development discussed above as well as deadlines, and responsibilities.

In the development project the role of the professional expert is especially emphasised as the one ultimately responsible for the professional content of the product all through the phases of planning, development and final evaluation.

During the planning phase the success-factors that ensure the final applicability of the product are defined. These factors, in the phase of evaluation, also make the measurement of the users' development possible.

AN INTRODUCTION TO THE LMS

The LMS (Learning Management System) employed by the HMRC is an American system called SABA. They have been using it since 2006. As for its structure and operation it is similar to other open-source or venal learning-aid systems. In 2008 there were 94,000 users registered, 10 % of which is a regular user. In choosing the system it was of essential that it could handle the parallel login and activities of at least 2,500 users which covers about 2.5 % of all registered users. The management of user data is carried out by approximately 60 administrators.

The LMS, besides its applicability in developing electronic curricula, is a suitable tool for co-ordinating and administering classroom trainings as well.

In order to avoid problems related to e-learning and the functioning of the LMS a Learning Service Centre was established with 26 employees that maintain the efficient work of the LMS. During April and May 2008 there were 4,000 requests forwarded to the centre via e-mail or phone.

THE EVALUATION OF TRAININGS

Evaluation is crucial in curriculum-development and is implemented during the development phase and subsequent phases at various times.

The first evaluations are immediate after the courses have been finished, be it classroom education or e-learning material acquisition and are aimed at evaluating first opinions and impressions related to material/course acquisition or education/training.

The next evaluation takes the form of filling in a test sheet at a certain date which is targeted at measuring whether the users, based on what they have learnt, can perform tasks set out in the course material. (For example can they carry out a work process discussed in the curriculum, on their own?)

The third date of evaluation is six months after the course and can be carried out by either the student, their superiors or colleagues and aims to estimate the development they have shown in the specific field since the course ended, and also, to define how their progress is viewed by their superiors and colleagues.

A vital part of evaluation is the testing of the e-learning material during which they define how to measure and evaluate the students' performance in the different phases of evaluation, after utilization.

Evaluation is accomplished dealt with by three members of the group.

UTILISING E-LEARNING SOFTWARE

The most important software used by HMRC to develop their curricula are the e-learning software of Adobe® and their self-developed RCAT software.

Adobe® Authorware is the most complex software used for creating e-learning material that is also filled to the brim with multimedia applications. As it is not an open-source software the curriculum development centre has bought only two licences.

For creating images, figures and drawings Adobe® Photoshop is used. One colleague has the sole task of creating the graphics interface for the curricula. In the course of development the multimedia requirements are defined and are gathered from the Internet or from one's own resources. The materials so collected will take their final form after a personal discussion with the procurer.

The software Adobe® Captivate is used for creating multimedia parts such as flash animations, software presentations.

The RCAT (Revenue and Customs Authoring Tool) software is a general tool used for crafting curricula. It was especially designed for HMRC and is employed by every curriculum designer.

The most important characteristics of curriculum development *are that it is organised accurately and the tasks are divided*. In the process of development the Learning Business Partners and other experts construct, screen by screen, what text-content, what multimedia elements, what function keys and tasks the curricula should be equipped with. Thus the author of the project "only" has to do editing jobs.

Kulcsszavak: oktatás, képzés, e-learning, b-learning, vám, vámhatóság, oktatási programok

Keywords: education, training, e-learning, b-learning, customs, customs authority, training programmes

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