

# **SOME WAYS OF VOCATIONAL TRAINING OF STATISTICIANS**

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## **Summary**

The importance of words like qualification, knowledge, and professional skills is growing and the field of education and professional development of staff is substantially changing. This tendency has already been observed for a longer time and not only in the area of the state statistical service. The strategy of a lifelong education in the Czech Republic is under preparation. However, it is important that employees already started to realize rather fast that the qualification they received during their studies at school is not enough. That is why they themselves increase their demands in connection with their career development. In the area of professional training, demands for training managers increase, too: more than ever before they are forced to solve utilisation and relation between traditional and new forms of training. The goal is to guarantee conditions for building of working teams of qualified experts, who have not only the right motivation, but also sufficient education with skills and remits, that correspond with the current as well as future requirements.

## **1 USING OF INFORMATION TECHNOLOGIES IN TRAINING OF EMPLOYEES**

Besides the real world, in which statistical data production takes place, the so-called virtual world gains more and more power in our lives. Terms like e-Business, e-Commerce, and e-Recruitment influence us more often in personal and professional life. Recently, e-Learning has been attracting our attention. In literature, which is now available in the CR, it reads that this term was presented officially for the first time in Great Britain, namely 4 years ago. So, how can e-Learning be defined? You can find more definitions. As for me, I prefer the one which says that e-Learning is a process of education, which is supported by information technologies. However, at the same time I always add that it is no universal medicine; it is a good helper, which can become a useful and effective instrument and can contribute a lot to improve quality of education. E-Learning can make education easier - and so it can be used also in the training of officials of the state statistical service.

Reasons for using e-Learning in training of employees are not only the possibility to constantly synchronize available sources and the most updated materials, but most of all the possibility to make operational changes in the contents of courses and to make them easily, right according to the actual needs. The contents is then not static and, unlike printed materials, updating of which is rather complicated and costly, it is rather easy to update contents in e-Learning space and it does not have to cost much.

## **2 OPINIONS ON USING E-LEARNING DIFFER**

Just as a traditional way of education, e-Learning also has its advantages and disadvantages. However, when we want to evaluate them in an objective way, we must always look at them from the position of both the entities involved: the organization and, especially, the employee, i.e. the object of education.

When listing advantages e-Learning brings to employees, I proceed from evaluations made by e-courses participants from ministries and other bodies of the state administration of the Czech Republic. Participants state that absorption of information was easier for them so that they proceeded faster than at traditional form of education. As a reason they stated that they could search only for the information they themselves required so that they did not waste time for information of no importance for them or for the information they had already known. They appreciated also the possibility to safely test their knowledge as the answers to control questions were anonymous and that is why they were not afraid of making mistakes. An important reason for good evaluation of e-courses was also the fact that less confident employees or those with not so good conversational skills had the possibility to present the knowledge obtained without negative influences resulting from personal contact with an examiner.

To evaluate advantages e-Learning brings to an organization, I would like to name first the one, which is often underestimated, although it is very important from the point of view of educational process. In e-Learning employees can receive only those pieces of information they really need for their work. It is also important that unification as for quantity and contents of provided information is guaranteed at this form of education.

If an employer uses a traditional form of education in some area to train a larger number of employees, a greater number of lecturers have to be used. However, that can lead to a different amount of information received by listeners, or even to a different content. In practice unpredictable situations can occur most often in cases when information received is interpreted in several different ways. Nevertheless, the biggest problem occurs in those cases when there is a necessity to hand over pieces of information, which are standardized. To put it concretely, we can face this situation during entrance training of employees, when all participants of the course must be acquainted with intercompany culture and binding rules.

A practical advantage of e-Learning is also the possibility of certification of knowledge for a bigger group of employees on the basis of an examination. The Czech Statistical Office is now testing that in the area of training of employees in health and safety at work and fire prevention. The knowledge obtained so far confirmed that this form of education has met the requirements as yet. It was difficult, however, to get oriented in the large amount of products of various qualities, which are offered in that area.

Nevertheless, I can see the real power of e-Learning for education of employees of the Czech Statistical Office in the fact that it is an instrument, which is available practically whenever, from any place and to anybody if technical support exists. So it can be used to provide right information to the right people in the right time and on the right place. That is why, it is a form of education, which, unlike traditional education, can be realized in time, which is not strictly determined by the training plan but rather in the time selected by employees themselves. A participant does not have to be and often really is not only a passive participant in the process of education; they are rather forced by the interactive system to

participate in searching for information and to find necessary pieces of knowledge in it. That is why, the content taught is continually influenced by requirements of students.

At traditional training, all participants usually obtain the same material, which focuses on solving the same problems. In e-Learning, when the system is correctly elaborated, it is possible to create a profile which is so-called tailor-made for each user. In this profile it is possible to store information on previous experience with completed courses and at the same time to precisely define the direction of education and further procedure in the form of following knowledge modules.

As the last positive reason for a larger application of this form of training for employees of organizations and especially those managed by the state, I can present effectiveness and the amount of costs. Most discussions in the area of education take place namely from the point of view of costs spent. It is true that initial costs for implementation of e-Learning can be very high, especially when the courses are “tailor-made”; however, financial costs decrease with the number of participants and from a certain number of participants the costs for every new user are surely lower than at the traditional form of education. The figure provided by the European Commission is very high and amounts to some 30% as a percentual share of costs that can be saved by utilization of e-Learning in comparison with traditional education. For example, costs for printing and distribution of study materials and transport or even accommodation of students and teachers do not exist.

Up to now, I was speaking only about advantages of e-Learning for training of employees; however, as nothing is perfect, it is correct to present also the disadvantages. Most of all, it means bigger demands on widely accessible technical equipment and technologies used in practice of an organization.

The first essential condition for utilization of e-Learning is availability of required hardware and software to all users. Without fulfilment of this condition this form of education cannot be fully and effectively applied. If the equipment is insufficient, serious problems arise especially as for limited volume of the contents of education (SW) or unbearably slow transmission speed (HW). This dysfunctionality is demotivating for employees and it is often the cause why they refuse e-Learning.

The second necessary condition for utilisation of e-Learning is that access to these technologies is made available to all employees. In the opposite case, the difference between qualified and unqualified labour force, which does not have the possibility to use these technologies, gets even deeper. To put it concretely, some employees of service professions can force their employers to be also trained in the form of e-Learning and not only in a traditional way.

Speaking about disadvantages, I must also underline that e-Learning is not a suitable form for all types of trainings. As an example we can name those, which require:

- psychomotor learning;
- verbal communication;
- making fast decisions;
- immediate sharing of experience with others.

Similarly, it would also be unfair not to say that for some types of employees this form of education is unsuitable. That is why, we cannot recommend it without reservation, although the possibilities of e-Learning to adapt to the needs and requirements of users are rather high. So, for whom is this form of education less suitable or even unsuitable? Most of all, it applies to the following groups of employees:

- types of students, who need to listen to what they learn;
- very conservative persons, who have aversion to anything new;
- persons, who are not able to learn how to work with new technologies;
- persons who would strongly miss interaction with other students.

### **3 Quality of the training process and motivation of employees**

The key to successful education of adults is to motivate them. This fact many times confirmed in practice was verified also by a study of OECD published in 2003 called “More than rhetoric; Policy and practice of adult education”. Conclusions of the study were identical with those of practice. An adult no longer wants to waste time to learn again something he or she already knows. They look for such opportunity to study, which is of good quality and is adapted to their time schedule and optimal pace of learning.

From my practice in the area of human resources management in the state statistical service I know that most employees are very sensitive and at the same time very critical about realization of unexpected changes. That is even strengthened if the employees are not convinced that they will benefit from the changes in their personal or professional life. That is why, we face some suspicion also when proposing new forms of training of employees. What I learned from this experience for my future work is that it is better not to follow only new, though rational trends, but rather consider carefully for whom a change is being prepared as well as expectations it is to meet. (This lesson of course does not apply only to the area of training of employees). An essential part of motivation for learning is not only to meet expectations, but especially to ensure quality of teaching and recognition of education obtained.

Although vocational training of employees of the Czech Statistical Office has already been carried out successfully for a long time, we do not have much experience from the area of e-Learning, yet. E-Learning was used for training of all our employees in “Health and safety at work and fire prevention“ and also in European matters. Despite that, I have already tried at this conference to present my opinion on e-Learning, which is still rather unusual form of education in the state administration of the CR. It proved to be confirmed that to use all benefits maximally and to suppress disadvantages of e-Learning, it is necessary to communicate more with employees about its possibilities. However, wider cooperation with IT experts, especially their irreplaceable effective support at realization of a course is of the same importance.

So, does e-Learning deserve our attention as one of the new forms of training of employees? I personally say “yes” and therefore I do support it. I assume that just as a traditional form of education, e-Learning has also wide possibilities of application in education of statisticians.