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INNOVATIVE TRAINING TECHNOLOGIES AS AN ELEMENT OF CORPORATE PERSONNEL DEVELOPMENT

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Abstract

The article is devoted to the analysis and systematization of the used teaching methods (technologies) as the most important element in the organization of training corporate systems. It is noted that in the digital economy, the problems of professional development of human resources through the use of the latest methods and tools are becoming especially relevant, and for employees of organizations, issues of learning and motivation to develop their professional qualifications are becoming increasingly important. The article analyzes domestic and foreign scientific publications and studies on the organization of corporate personnel training systems; the approaches to the classification of forms and methods of teaching adult students are studied. Taking into account the trends in the development of digital technologies, an author's approach to the classification of forms of learning by degree of innovation is proposed. A comparative analysis of the most common traditional and innovative methods of training employees according to specific criteria; their advantages and disadvantages are determined. The practice of applying innovative methods of personnel training by Russian and foreign companies is studied. Two types of innovative learning are examined in more detail: e-learning and distance learning. The characteristic of distance learning methods is given. A brief overview of the Russian market for the development and implementation of distance learning systems is presented; the practice of evaluating the cost-effectiveness of implementing remote systems is analyzed.

1. Introduction

The development of the company is a continuous process, the ideal course of which does not exist: it begins from the moment the organization was born and continues throughout its activities. Continuity of development is determined by constantly changing internal and external operating conditions: the state's economic policy is changing, legislation is being improved, the Internet and information technologies are actively developing, horizontal and vertical communications of all processes are strengthening both at the corporate, state and regional levels. The internal ones do not lag behind the external conditions for the existence of organizations: strategic goals and objectives, organizational structure are changing, labor processes are being improved, innovative technologies and automated intelligent systems are being introduced, digital techniques and methods of working with personnel are being mastered (Simonova, Ilyukhina, Bogatyreva, Vagin, & Nikolaeva, 2016; Schekoldin, Bogatyreva, & Ilyukhina, 2020).

In these conditions, the problems of professional development of human resources through the use of the latest digital methods and technologies are becoming especially relevant, and for employees of organizations are becoming increasingly important issues of learning, adaptability and motivation to develop their professional qualifications and competencies (Simonova, Ilyukhina, Romantsev, Khamatnurov, & Zeer, 2016). In support of the above, one can cite the results of the conclusions of experts from the NAFI Analytical Center and the Skolkovo Fund, studying the current readiness of Russian companies for the digital economy. According to their results, the readiness index of most Russian companies for the transition to digital technologies is 36 points out of 100 possible and the first place among the weak is the unpreparedness of employees to switch to digital tools and working methods, the low level of development of digital competencies. In this regard, the organization of retraining and advanced training of company employees based on the use of the most convenient, effective and less costly innovative forms and methods of personnel training is coming to the fore.

2. Problem Statement

The analysis of domestic scientific research and articles on the topic of professional development indicates a broad theoretical study of the issues of planning and organization of personnel training as a system. So, for example, questions of the sequence of development of corporate training systems have been thoroughly investigated; the practical experience of companies in organizing employee training in general is widely reported (Vorotyntseva & Nedelin, 2008; Chulanova & Timchenko, 2016; Ilyukhina, Bogatyreva, Makhmudova, & Ermakova, 2019).

The issues of organizing adult corporate training have also been deeply studied by individual foreign research scientists: the features of adult students' training have been identified (Knowles, Holton, & Swanson, 2011); developed a cyclic model of learning and assimilation of new information; methods for assessing the effectiveness of training have been studied (Kirkpatrick & Kirkpatrick, 2007) and others. However, in our opinion, individual elements of the organization of the training system have not yet been studied, in particular, a critical analysis of various forms and training methods for different categories of personnel. In addition, the digitalization of the economy, the introduction of digital technologies and

mobile devices today have given rise to new methods and tools of education, the study and use of which is very interesting and deserves close attention.

Thus, it seems to us that in order to increase the efficiency of the employee training process, the convenience of organizing training for adult students, and the possibility of saving the training costs budget, it is necessary to dwell in more detail on the analysis and systematization of the training methods (tools) used as an essential element in the organization of a training corporate system; conduct a comparative analysis of modern innovative methods; identify their strengths and weaknesses; to study the practical experience of using new tools; identify trends in their development.

3. Research Questions

In corporate personnel training in Russian practice, there are several approaches to the classification of the forms and methods of training used. Regarding organizational forms of training, there are primarily two main ones, depending on the place of study - with separation from production (workplace) and without separation.

The second criterion for classifying forms of learning - is depending on the methods used. Here, standard (traditional) methods (lectures, seminars, briefings) and active (modern) teaching methods (trainings, business games, etc.) are distinguished. There is a classification of forms of training according to the degree of involvement in the company: there is corporate training, self-education and training in specialized educational institutions. Finally, the forms of training are distinguished by the number of students - individual and group. It seems to us that in the conditions of the development of innovative technologies, it is necessary to classify the forms of training, first of all, according to the degree of innovativeness, meaning this means the use in the learning process of new or improved methods (tools) of personnel development, which differ significantly from the current application practice; more effective in terms of achieving learning objectives.

The authors paid particular attention to the method of gamification as one of the innovative tools for the professional development of human resources. The essence and features of the method are determined; the factors affecting the prevalence of gamification in the modern practice of staff training are identified. Briefly formulated are the trends in the choice of teaching methods by modern Russian companies.

4. Purpose of the Study

In our opinion, the urgent task for many medium and large enterprises to create corporate training systems cannot be fundamentally solved without a thorough study of its structural elements, which are the used methods and technologies of training and professional development of qualifications (Ilyukhina, Bogatyreva, Makhmudova, & Ermakova, 2019).

It should be noted that the corporate training system in Russia does not differ in its diversity in terms of the forms and methods used. The most popular types of training for employers today are trainings, "field training" or internships. These teaching methods remain the same in the context of the development and implementation of digital technologies, despite the fact that more effective innovative

tools are emerging. Small and medium-sized Russian companies do not provide training at all, which is usually associated with the lack of sound planning and organization of work to train employees, or insufficient funding.

Thus, it is necessary to analyze and develop a classification of training technologies according to the degree of innovation, which is relevant today. This will allow not only to use innovative approaches of professional development of employees for effective training, to save the budget of training costs; but also constantly maintain a high level of professional competence of personnel, train them ahead of schedule, focusing on organizational changes in the external environment. It is also important to conduct a comparative analysis of innovative teaching methods, identifying their advantages and disadvantages. This is the goal of our study.

5. Research Methods

The scientific works of Russian and foreign scientists on the organization of corporate training systems, the results of their own work of the authors made up the theoretical and methodological basis of the study. To achieve this goal, we used the methods of logical analysis, classification of objects of study, analogies. The best practices of the application of innovative methods of personnel training were studied; distance learning systems; gamification.

6. Findings

6.1. Classification of forms of education by degree of innovation

In our opinion, in the context of the development of the digital economy, it is necessary to highlight the forms of training according to the degree of innovation. In theory and practice, they usually distinguish between traditional (passive) and modern (active) teaching methods, while modern and innovative forms in the works of Russian researchers are synonymous. In our opinion, modern and innovative teaching methods should be distinguished. Innovative ones include those that have a certain novelty or uniqueness in the practice of application, or it can be improved training procedures that differ significantly from previous methods and have not received wide distribution. In other words, we can say that the technologies in staff training have advanced enough to define new methods and tools for transferring knowledge and building competencies by the criterion of involvement in digital technologies.

So, if modern teaching methods mean the interaction of training participants with the teacher and with each other in order to develop professional competencies (skills), then innovative methods involve the use of digital technologies as a learning intermediary for the formation of both new knowledge and skills. From this point of view, modern and innovative forms of training relate to different selection criteria. Thus, according to the degree of involvement in digital technologies, we can distinguish between traditional (including both passive and active teaching methods in the classroom and at the workplace) and innovative, involving the interaction of training participants through the use of computer technologies and intelligent information systems.

6.2. Comparative analysis of traditional and innovative methods of staff training

In Russian and foreign practice today, a huge variety of active and passive teaching methods are used, each of which has its own application features, advantages and disadvantages that must be taken into account when planning the budget for training costs and the organization of the training process as a whole. Table 01 presents a comparative analysis of the most common traditional and innovative methods of training employees according to individual criteria. It should be noted that as part of the study and systematization of the variety of training technologies existing in practice, we analyzed each of the presented in table 01 methods; their advantages and disadvantages are determined; studied the practice of using the analyzed methods by Russian and foreign companies.

Table 01. Comparative characteristics of traditional and innovative methods of staff training

Training methods	Two-way communication: student-trainer	Aims to build skills	Low financial costs	High audience reach	Suitable for beginners	Risk for implementing business processes
Workplace training						
Mentoring (apprenticeship)	+	+	-	-	+	-
Briefing	-	-	+	+	+	-
Rotation	-	+	-	+	-	+
Complicated Tasks Method	-	+	+	+	-	+
Using work instructions	-	+	+	+	+	-
Production training	+	+	+	+	+	-
Secondment Method	+	-	-	-	-	+
Training by action ("Action learning")	+	+	+	-	-	+
Shadowing Method	+	-	+	-	+	-
Buddying method	+	+	+	-	+	-
Off-site training						
Lecture	-	-	+	+	+	-
Seminar (Conference)	+	-	+	-	+	-
Case Analysis	+	+	+	-	-	-
Business games	+	+	-	-	-	-
Metaphorical game	+	+	-	-	+	-
Role-playing games	+	+	-	-	+	-
Training	+	+	-	+	+	-
Coaching	+	-	-	-	-	-
Brainstorm	+	-	+	+	+	-
Balint groups (group discussion workshops)	+	+	+	-	-	-
Distance learning methods						
Webinars	+	-	+	+	+	-
Case technology	+	-	+	+	-	-
Database	-	-	+	+	+	-
Audio and video training	-	+	+	+	+	-
Computer training courses	-	+	+	+	+	-
Remote Coaching	+	+	+	-	-	-
Gamification	+	+	-	+	+	-

Meanwhile, despite the existing variety of active and passive training methods, many companies, with the goal of continuing training of their employees, are searching for new technologies that can increase the efficiency of the process of mastering knowledge, cover the maximum number of employees and at the same time reduce financial costs. This has become possible with the development of the digital economy. According to the Training Magazine portal, companies save about 50-70% of the training budget by replacing full-time forms with remote ones.

6.3. Characterization of types of innovative training, their advantages compared to traditional methods

In the context of digitalization, it is proposed to distinguish two main types of innovative learning: e-learning (online learning) and distance learning. Despite the fact that some researchers consider these concepts synonymous, they should be distinguished by the criterion of the subject of action.

E-learning (e-learning) is the use of new multimedia and Internet technologies to improve the quality of education through access to educational resources. A distinctive feature of e-learning is the obligatory mediation of interactive electronic means of working with information, while interaction with another person (even indirect) in e-learning is not necessary, but may be present. That is, there is both a subject-object interaction and an interaction between subjects. Online learning is not formalized, its main method is self-education, i.e. an attempt to independently fill in the gaps in knowledge in a convenient form.

Distance learning is a way to implement the learning process, based on the use of modern information and telecommunication technologies that allow learning from a distance without direct personal contact between the teacher and the students. A distinctive feature of this training is that the interaction of participants is carried out indirectly, through a program that sets the algorithm for the functioning of the training system and all its participants; it is more formalized than e-learning. It should be noted that some researchers consider distance learning to be methods. In our opinion, this is a generalized concept that includes several varieties of methods (see table 01). As part of our research, we have identified the advantages and disadvantages of using distance learning methods.

A review of the Russian market for the development and implementation of distance learning systems revealed the main players in this area. These are the platforms Moodle, iSpring Online, Teachbase, Competentum, WebTutor, etc. Many Russian companies choose the distance learning system iSpring Online, because it provides companies with many opportunities. Among them are Russian companies such as Alfa Capital, Travelline, Paolo Conte. The Web Tutor distance learning system is also very popular and is used by holdings and large organizations with a complex organizational structure, such as PJSC «Sberbank», Magnit, Rossgostrakh, and Alfa Bank.

An assessment of the cost-effectiveness of implementing distance learning systems for some companies revealed positive trends. So, the return on investment in the distance learning system at Nestle was 28% per year, which indicates the significant effectiveness of the introduction of LMS. Other indicators also showed positive dynamics, in particular, an increase in the level of knowledge in the company amounted to 88%, moderate progress in changing behavior was observed in 49.5% of students.

Rossgostrah conducted a retrospective assessment of the effectiveness of the WebTutor distance learning system using criteria such as the impact of training on turnover; the number and frequency of

horizontal and vertical movements; quantitative and qualitative indicators of the activities of trained employees and expert assessment of managers; quantitative and economic performance indicators. The examination showed that after the introduction of distance learning practice, sales grew from 15 to 25%; satisfaction of customers and target consumers with the quality of services has grown; staff turnover has decreased. After the introduction of the Teachbase system at Siberian Health, the employee engagement rate increased; staff turnover has decreased; significantly reduced the cost of mentoring and as a result, increased the number of positive reviews from external clients.

6.4. Gamification as an innovative learning method

Recently, a new distance learning tool such as gamification has been actively used in Russian HR practice. It represents the transfer of game mechanisms, principles and tools for solving real, non-game problems and problems in various fields of human activity. This method is actively used, including in employee training, motivation, development of corporate culture, development of innovation. The method is based on the game as a special type of activity.

Since serious information is difficult for trainees to perceive, various training simulations are created using various technologies (for example: business games, business quests), during which training takes place. The learner's involvement is facilitated by the involvement of the learner, because by translating complex information into an accessible form, introducing the heroes of the game, accruing prize points, game money, etc. gamification helps to make the learning process dynamic, interesting, and most importantly, effective. The teacher gains experience, forms a personal list of achievements.

It should be noted that recently the interest of Russian employers in gamification has grown significantly, due to several factors:

- the costs associated with staff training are considered by companies as priority and most profitable investments, which necessitated the search for new technologies for effective training;

- in the personnel policy of companies, there is a shift towards attracting generation-Y employees, characterized by a deep involvement in digital technologies. One of the effective mechanisms for influencing generation Y is precisely the game;

- huge investments in employee training and development force the company management to use various techniques to keep them: using gamification, a special corporate culture of involvement in the work and affairs of the company is formed;

- improvement of digital technologies and their cost reduction allow introducing gamification elements into various projects and expanding the scope of tasks to be solved (recruitment, development of innovations) (Markeeva, 2015);

- the company's innovativeness, as a new indicator of its success, forces corporations to constantly generate new ideas, while not exerting pressure on their employees, which helps gamification. Researchers have identified an increase in loyalty, productivity and idea generation up to 50% of the implementation of gamification in companies. We must not forget that the higher the loyalty of the staff, the lower the potential personnel threat from this staff the organization has (Makhmudova, Ilyukhina, & Bogatyreva, 2019);

- psychological studies in the field of training have shown that a person remembers 90-92% of information if he independently performs actions associated with this information (Varenina, 2014).

Unfortunately, despite the factors presented, in the Russian personnel management practice the gamification method is not often used.

So, innovative teaching methods have a lot of advantages. They more flexibly "adapt" to the needs of students, contribute to the achievement of learning goals at a time convenient for the student, reduce time costs and save the budget, provide high audience coverage, bear minimal risks for the implementation of business processes. Using innovative teaching methods allows you to constantly and continuously maintain a high level of professional competence of personnel, to train them ahead of schedule, focusing on organizational changes in the external environment.

7. Conclusion

In conclusion, let us dwell on the trends in the choice of various training methods by Russian companies. For employees with a high level of qualification, a high level of motivation and self-confidence, the emphasis today is on the use of training methods that are active with the use of innovative technologies and aimed at the formation of managerial, communicative skills and business qualities (business simulation game, trainings, business quests, training action, computerized learning and others). According to statistics, today in Russian companies the largest share in the list of methods used is occupied by modular training - 83%, mentoring - 78% and training in working groups - 60%, but distance learning - only 37% of the total list of methods used, which is clearly not enough for today (Bezlepkina, 2010).

References

Bezlepkina, E. (2010). *Modern methods of personnel training*. Forum of the National Guild of Professional Consultants. Retrieved from: http://www.ngpc.ru/forum2010/Articles/Learnining%20methods.pdf Accessed: 25.10.2019. [in Rus.].

Chulanova, O. L., & Timchenko, J. A. (2016). Corporate training and methods of evaluation: Approaches, tools, challenges and ways to overcome them. *Internet Journal "Naukovedenie", 8*(1). https://doi.org/10.15862/13EVN116 [in Rus.].

Ilyukhina, L. A., Bogatyreva, I. V., Makhmudova, I. N., & Ermakova, J. D. (2019). The corporate personnel training system development: The experience of Russian enterprises. In V. Mantulenko (Ed.), *Proceedings of the International Scientific Conference on Global Challenges and Prospects of the Modern Economic Development (GCPMED 2018). European Proceedings of Social and Behavioural Sciences*, *57* (pp. 654-665). London: Future Academy. https://doi.org/10.15405/epsbs.2019.03.65

Kirkpatrick, D. L., & Kirkpatrick, J. D. (2007). *Implementing the four levels: A practical guide for effective. Evaluation of training programs.* San Francisco: Berrett-Koehler Publisher.

Knowles, M. S., Holton, E. E., & Swanson, R. A. (2011). *The adult learner: The definitive classic in adult education and human resource development.* London, New York: Routledge Taylor & Francis Group.

Makhmudova, I. N., Ilyukhina, L. A., & Bogatyreva, I. V. (2019). Personnel safety in the system of economic security and personnel management. In V. Mantulenko (Ed.), *Proceedings of International Scientific Conference on Global Challenges and Prospects of the Modern Economic Development (GCPMED 2018). European Proceedings of Social and Behavioural Sciences, 57*, (pp. 1859-1865). London: Future Academy. https://doi.org/10.15405/epsbs.2019.03.189

Markeeva, A. V. (2015). Gamification as an instrument of personnel management in a modern organisation. *Russian Journal of Entrepreneurship, 16*(12), 1923-1936. https://doi.org/10.18334/rp.16.12.390 [in Rus.].

Schekoldin, V. A., Bogatyreva, I. V., & Ilyukhina, L. A. (2020). Digitalization of labor regulation management: New forms and content. In S. Ashmarina, M. Vochozka, V. Mantulenko (Eds.), *Proceedings of ISCDTE 2019, VII International Scientific Conference Digital Transformation of the Economy: Challenges, Trends and New Opportunities. Lecture Notes in Networks and Systems, 84*, 137-143. Cham: Springer.

Simonova, M. V., Ilyukhina, L. A., Bogatyreva, I. V., Vagin, S. G., & Nikolaeva, K. S. (2016). Conceptual approaches to forecast recruitment needs at the regional level. *International Review of Management and Marketing, 6*(5S), 265-273.

Simonova, M. V., Ilyukhina, L. A., Romantsev, G. M., Khamatnurov, F. T., & Zeer, E. F. (2016). Approaches to monitoring of competences and qualifications. *IEJME: Mathematics Education, 11*(7), 2745-2760.

Varenina, L. P. (2014). Gamification in education. *Historical and Social Educational Ideas, 6*(6-2), 314-317. [in Rus.].

Vorotyntseva, T., & Nedelin, E. (2008). *Building a system of staff training. A practical guide for training professionals*. St. Petersburg: Speech. [in Rus.].