

PROSPECTS AND BARRIERS TO THE USE OF MODERN TECHNOLOGIES FOR PROFESSIONAL DEVELOPMENT (ON THE EXAMPLE OF THE OMSK REGION)

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Abstract

Professional development in theory and practice is increasingly understood as the main factor in achieving the strategic goals of both enterprises and individuals. Meanwhile, the applied methods of professional development translate outdated paradigms of social and labor relations based on forced development. The best practice has accumulated a wide variety of modern methods and technologies for professional development, which requires appropriate generalization and analysis. The purpose of the study is to determine the potential and barriers to using mentoring and coaching as modern technologies for professional development. To obtain an expert point of view on the professional development of personnel, an expert and a questionnaire surveys of the employed population were conducted. The experts were HR managers of the organizations of the Omsk region. The main hypothesis was the assumption that mentoring and coaching make it possible to overcome motivational barriers in professional development. Leading enterprises have a positive track record of using mentoring and coaching, but their proliferation faces barriers. Among the barriers, the low qualifications of business coaches in the use of these technologies, budget constraints, and the unavailability of top managers are highlighted.

Key words: professional development, personnel development methods, mentoring, coaching, professional development contradictions

JEL Code: J21, J24

Introduction

New forms of social and labor relations presuppose the construction of such methods of professional development, which: firstly, develop competencies; secondly, motivate employees for continuous professional development; thirdly, they combine professional and personal development; fourthly, they are interesting from the point of view of implementation. Meanwhile, the applied methods of professional development translate

outdated paradigms of social and labor relations based on forced development. Advanced practice has accumulated a wide variety of modern methods and technologies for professional development, which requires appropriate generalization and analysis.

The need for the continuous development of competencies is determined both by objective conditions (national projects, professional standards, production requirements, etc.) and by subjective perception. Analysis of the subjective opinion of employees makes it possible, firstly, to determine the most important and most deficient competencies in the implementation of professional activities, to identify the reasons for the gap in them; secondly, to find out the correspondence of the training objectives to the motives of the employees. It is important to note that the main goal of the development of employees is the quality of the implementation of professional activities in modern and future conditions. At the same time, the expediency of training is determined by its relationship with the solution of production problems and tasks, the creation of innovations, improvements in the work process.

The issues of the relevance of professional development of workers in modern conditions are considered in articles by Lytovchenko I. (2018), Mizintseva M., Sardarian A., Chavykina M. (2019); Mansurova T., Rudneva N. (2018); Kudryashev V., Moiseeva E.(2017); Zeer, E., Zinnatova M., Tretyakova V. (2019). The rationale for the importance of an intra-organizational learning approach through the use of modern technologies is presented in the works of Aliukov S., Radzikhovskaya V., Guryanova K. (2018); Rud O., Demidova I. (2015). The use of digital tools in professional development is explored in Barnova S., Krasna S., Gabrhelova (2019); Fallon J. (2005). The features of the use of mentoring and coaching as modern development technologies are analyzed in detail in the articles by Baran M., Zarzycki R. (2021); Piip J. (2019), Necknig, U., Leyh, H., Gernhold, L (2021); Westcott, L. (2016); Solomon, Ionela Gabriela (2016). Pechenaya, L. Ivanova-Shvets, I. Domarev, A. Mirzabalaeva (2019) consider the prospects and trends in the use of modern technologies for the professional development of employees of the organization.

1 Sample model and method

The aim of the study is to determine the potential and barriers to using mentoring and coaching as modern technologies for professional development. Research objectives: to determine the possibilities of coaching and mentoring in the development of softskills and hardskills on the basis of theoretical analysis and generalization of the experience of leading enterprises. To assess the prevalence and effectiveness of the use of professional development

methods at Omsk enterprises and to determine the prerequisites and obstacles for the use of mentoring and coaching as modern technologies for professional development.

The main hypothesis was the assumption that mentoring and coaching make it possible to overcome motivational barriers in professional development. To obtain an expert point of view on the problems of professional self-determination of the employed population, an expert survey was conducted. The experts were the HR managers of the organizations of the Omsk region. The sample was constructed using the targeted method, taking into account the territorial location, the scope of the organization and its size. The choice of an organization in the industry was carried out on the basis of their activity in the labor market (the number of vacancies announced in the structure of the employment service of the Omsk region). Thus, 132 HR managers were interviewed. The main criteria for the selection of experts were the work experience in the specialty (at least 1 year) and the availability of professional education. A questionnaire survey of the employed population was carried out according to a quota sample in the field of mechanical engineering (N = 922). The confidence interval is 0.05, the confidence probability is 95% (see table 1). Methods of descriptive statistics and correlation analysis were used to process the data.

Tab. 1: Sample of the study

Groups of employees	General population	%	Sample population	%
Joint-stock company «OmPO «Irtysk»				
Heads (chiefs, deputy chiefs / chiefs of technological and design bureaus, sectors / foremen)	116	13,5	116	24
Workers (main workers of the main production units)	477	55.8	213	43.9
Engineers	263	30.7	156	32.1
Total	856	100	485	100
Joint-stock company «ONIIP»				
Heads (chiefs, deputy chiefs / chiefs of technological and design bureaus, sectors / foremen)	106	16.8	106	24.3
Workers (main workers of the main production units)	137	21.7	137	31.3
Engineers	389	61.5	194	44.4
Total	632	100	437	100

source: own research

2 Results

Analyzing modern technologies of professional development, it can be noted that the leading enterprises have accumulated positive experience in the use of mentoring and coaching. A survey of personnel managers of organizations in the Omsk region showed that most often,

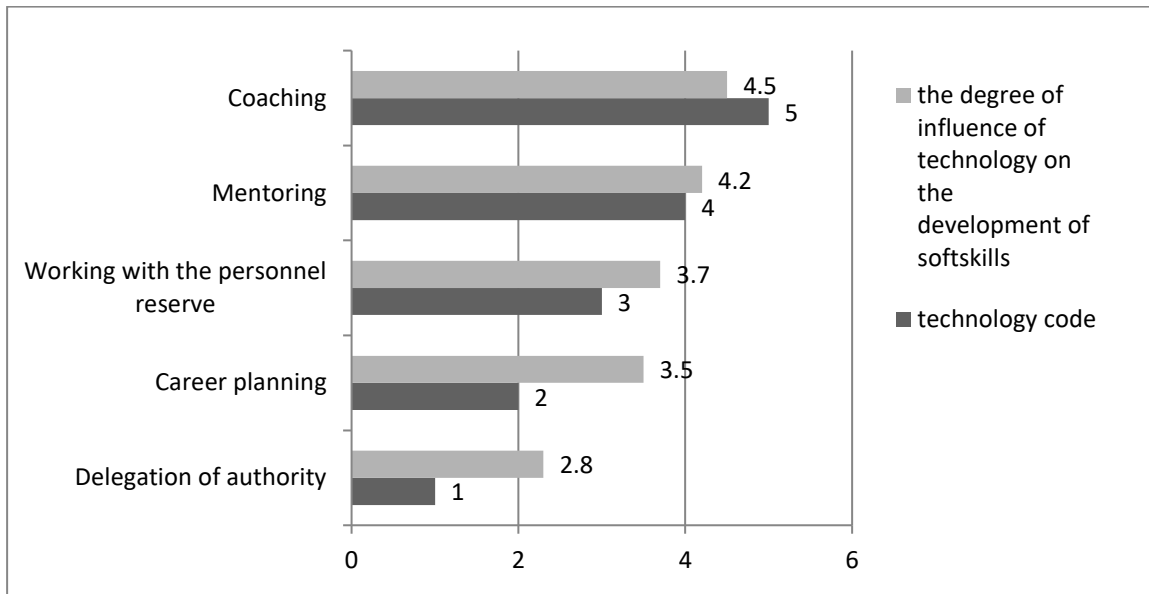
for the purpose of professional development, such development technologies are used as development as delegation of authority - 89.3%, career planning - 58.4%, working with the personnel reserve - 46.6%.

The use of traditional technologies leads to the emergence of motivational barriers and does not contribute to the achievement of the goals of the organization. These barriers are associated with a lack of personal desire to learn and develop a lack of understanding of the development of certain skills. Modern conditions require the development of new educational technologies that integrate content, motivational, and gamification technologies. Such technologies are mentoring and coaching, which are increasingly taking root in personnel management in Omsk organizations. A survey of experts showed the possibilities of using mentoring and coaching in the development of various types of competencies. The practical significance of using coaching and mentoring technologies is to develop models for the formation of a core of professional competencies, taking into account the needs of the labor market and qualification requirements. Such models and methods of their implementation will allow achieving the planned level of professional competencies and can be used to intensify and improve the quality of the work process.

The results of the survey of HR managers of Omsk companies showed that mentoring and coaching influence the development of hardskills, and especially softskills, to a greater extent, which help, according to experts, to look at your life in a different way, get rid of internal barriers that impede the achievement of goals and learn to find your own resources. To process the question of assessing the impact of the training technologies used on the development of softskills, the Likert scale was used (0-completely does not affect, 5 – completely affects), the influence coefficient was calculated as a weighted average. The variants of the answer about the choice of technology for professional development in the organization were assigned ciphers according to the criteria (contributes to the achievement of the goals of the organization, removes motivational barriers, etc.) (see figure 1).

On the basis of this, the Gamma correlation coefficient was calculated, which is equal to 0.75, the probability of error $p=0.001$. The greater the expert considers the impact of mentoring and coaching on the development of softskills, the greater the probability of choosing these technologies for professional development in the organization, which proves the hypothesis of our study.

Fig. 1: The impact of professional development technology on the formation of softskills



source: own research

Experts named mentoring and coaching as useful and desirable technologies, which make it possible to increase the level of involvement in the organization's processes, to develop managerial and leadership competencies, to form personal attachment and interest of the employee, and to increase his motivation for professional growth. Through the work of coaches and mentors, employees begin to identify themselves as a vital part of the organization, creating a high level of responsibility at the same time. The majority of HR managers (74.5%) noted the existence of problems in the field of personnel management in their organizations. It was noted that these problems are manifested in a low level of employee involvement in organizational processes (38.1%), in unwillingness to learn and build a career (32.8%), in high staff turnover (25.3%), low labor productivity (17.5%). In this case, mentoring and coaching have significant potential as a technology for the professional development of employees.

More than half of the experts (54.8%) answered that the level of competence development among employees of their organizations is sufficient, but it would not hurt to learn a little more; 38.2% noted the level as insufficient; 7.7% of respondents were satisfied with the level of competence development of their employees and 1.2% found it difficult to answer.

At the same time, the employees themselves are aware of the gap between the importance of certain competencies and their deficit. So, according to the results of a survey

of workers in the engineering industry, statistically significant differences in the importance and deficit of competencies between the two groups of technical workers were revealed (see table 2). The result showed that knowledge of calculation methods, knowledge of the English language and the ability to be creative in solving problems are more important for engineers than for workers. At the same time, engineers, largely than workers, are lack of knowledge of equipment, materials, software products, knowledge of related technical fields, as well as knowledge of economics and English.

Tab.2: The difference between the average assessments of the importance of technical (hard skills) and superprofessional competencies (soft skills) and their deficit in the activities of workers and engineers

Competencies	engineers	workers	T-criterion Student (sign.)
Technical competencies			
The importance of knowledge of calculation methods and the ability to implement them	2.19	1.98	2.538 (0.011)
Lack of knowledge of the features, design of the equipment and the ability to work on it	0.63	0.46	0.529 (0.012)
Lack of knowledge of software products	0.94	0.70	2.927 (0.004)
Lack of knowledge of the features of materials	0.64	0.48	2.266 (0.024)
Lack of knowledge and skills of related technical professions	1.13	0.66	5.779 (0.000)
Superprofessional competencies			
The importance of English language skills	1.51	0.65	11.012 (0.000)
The importance of being creative in solving problems	2.48	2.37	1.676 (0.094)
Lack of economic knowledge	0.88	0.64	2.904 (0.004)
Lack of knowledge of English	1.18	0.71	5.156 (0.000)
Lack of ability to perceive the task holistically	0.53	0.37	2.602 (0.010)

source: own research

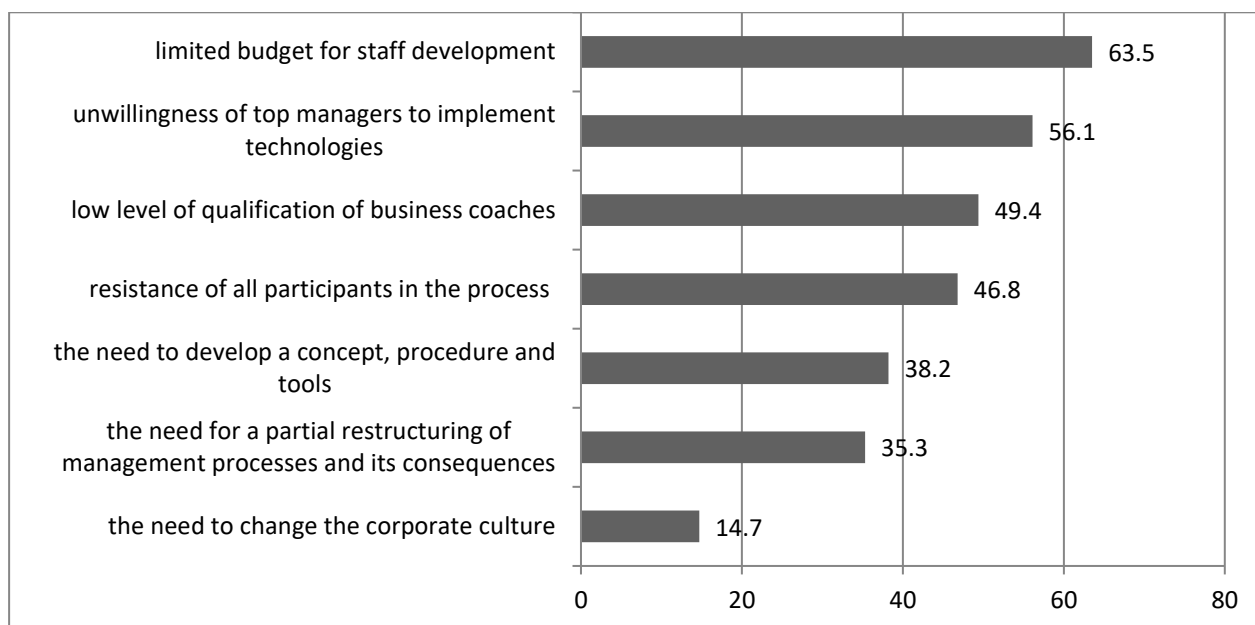
Thus, we made a reliable conclusion that the need for the development of supra-professional competencies by technical workers is realized to a lesser extent than in the development of technical competencies. It follows that workers and engineers will be more motivated to develop specialized skills. However, an analysis of objective requirements, in particular, professional standards, indicates that it is necessary to develop two groups of competencies, and in this case, a gap in the perception of competencies by employees is

obvious. In this regard, development requires the interconnection of technical and supra-professional competencies.

Mentoring and coaching, as we found out earlier, will be more focused on removing motivational barriers to professional development and bridging the gap between the importance of competencies and their deficit.

At the same time, the introduction of these educational technologies in the organization of the Omsk region faces a number of barriers (see figure 2).

Fig. 2: Barriers to the spread of coaching and mentoring in organizations of the Omsk region (% of respondents)



source: own research

According to the results of a survey of HR managers, the most significant barriers are the limited budget for professional development; reluctance of top managers to implement these educational technologies; low qualifications of business trainers and their inability to develop a concept, procedure and tools; resistance of all participants in the educational process, especially the employees themselves.

Conclusion

Thus, the study showed that traditional technologies of professional development, such as work with a personnel reserve, delegation of authority, career development in modern conditions, lead to motivational barriers and do not bring corresponding effects in the

organization. The most effective, according to experts, at the moment are coaching and mentoring, helping to remove these barriers, more efficient organization of the work process in the company and the development of soft skills and hard skills. At the same time, the spread of these modern educational technologies is accompanied by certain difficulties: a limited budget for professional development, unpreparedness of top managers for changes, resistance from employees and other participants.

In order to reduce the resistance of staff to coaching and mentoring, it is necessary to: define the goals, objectives and needs of the company; carry out the introduction of technologies from the top down, that is, from top managers to lower-level managers and then to each employee. To involve both formal and informal leaders in the development of coaching and mentoring; form a team whose task is to implement this method; distribute the roles and functions of team members; ensure a close connection of technology with current activities and practical tasks at this stage.

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