

Innovative Model of Practice-Oriented Training of Employees of the Town-Forming Enterprise in the Mining Region (by the Example of JSC "SUEK-Kuzbass")

Svetlana Kulay^{1*}, and *Gennady Kayachev*²

¹Prokopyevsk branch of T. F. Gorbachev Kuzbass State Technical University, 653039, Nogradskaya st., 19a, Prokopyevsk, Russia

²Siberian Federal University, Department of Economy and Business Processes Management, 660041, Krasnoyarsk, 79 Svobodny av.

Abstract. The article proposes to improve the system of training of employees of joint-stock company SUEK-Kuzbass in the educational institutions of the Kemerovo region according to the requirements of the company using practice-oriented training technology. The aim of the work is to substantiate the effectiveness of implementing practice-oriented training, identify priority directions and ways of its development. The main objectives of the study are: to identify the main advantages for the company and students; determine the criteria for the success and practical value of applying practice-oriented training for the company; conduct a comparative analysis of the target and practice-oriented model of training for the company. The real needs of the employer through the dual form of training were taken into account. The expansion of positive experience in training engineering personnel in higher education in technology-based training with the involvement of specialists from other regions of the company and expanding training in mining was also included.

1 Introduction

In currently economic conditions the problems of sustainable regional development are of particular importance in the Russian Federation [1-3]. In Siberia, a significant number of coal industry enterprises in the region are classified as city-forming, however, in the crisis periods, the region particularly feels the shortcomings of mono-profile economic development.

In developed countries, the principles of state regulation of problem regions have been formed, but the role of transnational corporations with significant investment opportunities is also significant [4, 5]. It should be noted the successful experience of modernization of the Japanese city of Kamaishi with a high share of social responsibility of the city-forming enterprises and their close cooperation with local self-government bodies [6, 7].

* Corresponding author: osv-07@mail.ru

The city-forming enterprise in the Kemerovo Region is the SUEK SUEK-Kuzbass, one of the main employers and taxpayers in the region. The company implements a complex of socio-economic and charitable programs with the aim of creating a favorable social environment and raising the standard of living of the population.

The analysis of the company's age structure for the last 5 years shows the relative stability of the ratio of young (under 35, 42-44%) and experienced employees (over 35, 56-58%). Due to the targeted training program implemented in the company, the problem with the deficit of IT personnel has been successfully solved. In spite of this the number of age groups under 20 and 20-25 years is decreasing (due to a decrease in the number of young workers). There is an acute problem of the shortage of workers in the company.

There are several reasons for dismissal and decrease in the intake of this category of personnel: weak prestige of trade and mining professions; the compatibility between the expectations of young workers for the chosen profession, the unconscious choice of a profession; ineffective adaptation measures for workers, ineffective measures to retain employees in the company, inconsistency of the skills level of preparation for the company's requirements.

The problem of the deficit of highly skilled personnel, especially workers, can be decided only when the employer begins to take a direct part in training, starting from career counseling to the procedure of evaluating of the professional qualifications.

2 Materials and methods

During the research the following methods were applied: interview and questioning, experiment, testing, comparison, risk analysis, expert assessments, induction, study and generalization.

In the course of the study, the first results of the training of employees of the SUEK-Kuzbass joint-stock company on practice-oriented training technology in the branch of KuzSTU in Prokopyevsk, the target training program in JSC SUEK-Kuzbass were taken as a basis.

3 Results and discussion

In foreign practice, the universally recognized leader in the formation of a practice-oriented (dual) system of professional training of personnel is Germany, where this system takes its origin [8, 9]. The foundation high-quality specialists training is the integration of the learning process and practice, which is proved by the experience of educational systems in Germany, Sweden, Japan, Britain, and China [10-12].

There is a positive experience in training the employees of SUEK-Kuzbass, based on the technology of practice-oriented training in the branch of the "Kuzbass State Technical University named after T.F. Gorbachev" in the city of Prokopyevsk.

With the company JSC "SUEK-Kuzbass", the branch signed an agreement, according to which for the group of practical-oriented training a curriculum an individual study schedule were drawn up. The schedule of the educational process provides for each half-year of 2 months of classroom hours within the university with a retention of labor in the amount of 20 thousand rubles. Thus, for an enterprise, the annual costs are about 80 thousand rubles, as well as 4 months of absence of an employee in the workplace. For comparison: a student who is on targeted training costs the enterprise 100 thousand rubles. per year, but the employee is not during the entire training period.

Scientists of the KuzSTU branch conducted a major psychological study. Respondents were trained in this technology. The results are positive, the training technology is recommended for further implementation.

As a result of the technology introduction , the current development trends for the entire coal-mining region have been identified:

1. Using this technology to train young workers and, as a consequence, to choose professional educational organizations as a provider of services, which is confirmed by world experience in applying practice-oriented technology of education;
2. Scale the experience of introducing technology to train mining engineers in other regions of the company's presence and other specialties.

The criteria for the success of the introduction of an innovative model of practice-oriented tning will be: optimization of the terms of staff training, adaptation of graduates in the enterprise, staffing of the company with working personnel, lowering the turnover of workers, increasing staff motivation, increasing labor productivity and product quality.

Economic benefit is of high importance when choosing a training model. Table provides a comparative analysis of the company's costs per person for targeted and practice-oriented forms of education.

Table 1. Costs of the company for training students on targeted and practice-oriented forms of education.

The indicator	The target form of training	The practice-oriented technology of training
Education services, rubles / year	90000	0 (budget places)
Scholarship, rubles / year	48000	0 (paid by the state)
Certificates (for working positions), rubles.	18000	0(usually already available)
Total costs, rubles / year	156000	0

4 Conclusion

To sum up it is advisable to develop this model of education on the basis of positive experience and the existing material and technical basis for training workers in specialized educational institutions. Within the framework of the project it is proposed to study the experience of using this technology on the territory of Russia and Kazakhstan.

It is also proposed to expand the training of mining engineers in a practice-oriented training system by connecting the specialization "Mineral processing" and forming a group of employees from all regions of JSC "SUEK" (the training process and production practice will be carried out in the Kemerovo region, while students return to work their workplaces).

The proposed model of training is a solution to the current problems in the training of personnel for the coal industry by combining training with practice, which allows the student already in the process of learning to learn in more detail the chosen professional activities, team, working conditions, corporate culture of the enterprise, skill level requirements. A student studying on a practice-oriented model of training is more valuable for the company, since during the training is already participating in the creation of products. Thus, the practice-oriented form has a significant advantage in saving money

spent on the student, productivity during training, and also in the level of quality of specialists.

Mono-dependence is an acute problem, but in the case of practice-oriented learning, it is more a possibility, because only single-industry cities have city-forming enterprises that are related to big business, whose strengths and interests are to support the development of dual education.

References

1. P. Annoni, K. Kozovska, *Econometrics and Applied Statistics Unit* (London, BHHT, 2010)
2. M. Bussière, J. Imbs, R. Kollmann, R. Rancire, Amer. Econ. J.: Macroec. **5**, 75 (2013)
3. L.A. Kormishkina, E.D. Kormishkin, N.N. Semenova, D.A. Koloskov Mediter. J. Soci. Sci. **6:4**, 163 (2015)
4. J. Hollander, J. Németh, Housing and Policy Debate, **21:3**, 349 (2011)
5. L. Ping, North-East Asia Academic Forum, **63**, 550 (2013)
6. D. Carson, D. Carson, Scandinavian Journal of Hospitality & Tourism, **14:4**, 460 (2014)
7. D. Littlewood, Journal of Business Ethics, **120:1**, 39 (2014)
8. *How the dual system – practical vocational and academic - works in Germany. – Bonn* (Germany: BIBB, 2012)
9. K.A. Geissler, , *Das duale System der industriellen Berufslildung hat keine Zukunft, Leviathan*, (Hampshire, JOOP, 1991)
10. W. D. Greinert, *Das deietsche System der Berufsbildung* (Baden-Baden, Inner Pub., 1998)
11. A.T. Kapanova, The Third International conference on development of pedagogical science in Eurasia, **29**, 1556 (2015)
12. I. Abdulloev, I. N. Gang, M. S. Yun, The European Journal of Development Research, **26:4**, 509 (2014)