



DOI: 10.22363/2312-8631-2023-20-2-198-206

EDN: JNEMQB

UDC 377.127.6

Research article / Научная статья

Integration of approaches to employer – college interaction using information environment tools in the context of vocational training

Aleksandra V. Barannikova¹, Olga Yu. Zaslavskaya²¹RUDN University, Moscow, Russian Federation²Moscow City University, Moscow, Russian Federation a.barannikova1@yandex.ru

Abstract. *Problem statement.* The research is devoted to the interaction in the training of highly qualified personnel using the means of the information environment. The integration of employers and the college considered as an innovative guideline for the development and formation of future specialists in the real sector of the economy. The authors deal with the issue of information media tools that take into account current trends and innovations in the preparation and formation of college students. *Methodology.* The analysis of foreign and domestic works on this problem is made. With the help of open resources, the integration of interaction between employers and the college using the means of the information environment is considered. *Results.* The approaches of employer – college interaction are analyzed using the means of the information environment on the example of the Moscow region in order to increase the professional training of college graduates. *Conclusion.* Modern requirements in the training of specialists require the college to integrate more widely with employers, who should become interested participants in the educational process. The college has a task – to prepare professional personnel in demand in the labor market. For the successful implementation of this task, it is necessary jointly implement modern approaches in the training of future specialists.

Keywords: digitalization, megatrends, secondary vocational education, labor market, education informatization

Article history: received 2 October 2022; revised 15 December 2022; accepted 20 January 2023.

Author's contribution: the authors contributed equally to this article.

Conflicts of interests. The authors declare that there is no conflict of interest.

For citation: Barannikova AV, Zaslavskaya OYu. Integration of approaches to employer – college interaction using information environment tools in the context of vocational training. *RUDN Journal of Informatization in Education*. 2023;20(2):198–206. <http://doi.org/10.22363/2312-8631-2023-20-2-198-206>

© Barannikova A.V., Zaslavskaya O.Yu., 2023



This work is licensed under a Creative Commons Attribution 4.0 International License
<https://creativecommons.org/licenses/by-nc/4.0/legalcode>

Интеграция подходов взаимодействия «работодатель – колледж» с применением средств информационной среды в контексте подготовки профессиональных кадров

А.В. Баранникова¹, О.Ю. Заславская²

¹Российский университет дружбы народов, Москва, Российская Федерация

²Московский городской педагогический университет, Москва, Российская Федерация

 a.barannikova1@yandex.ru

Аннотация. *Постановка проблемы.* Изучается взаимодействие в подготовке высококвалифицированных кадров с помощью средств информационной среды. Интеграция работодателей и колледжа рассматривается как инновационный ориентир развития и становления будущих специалистов в реальном секторе экономики. Поднимается вопрос средств информационных сред, учитывающих современные тенденции и нововведения в подготовке и становлении обучающихся колледжа. *Методология.* Проанализированы зарубежные и отечественные труды по проблематике. С помощью открытых ресурсов изучена интеграция взаимодействия работодателей и колледжа с применением средств информационной среды. *Результаты.* Представлены подходы взаимодействия «работодатель – колледж» с использованием средств информационной среды на примере Московского региона для улучшения профессиональной подготовки выпускников колледжа. *Заключение.* Современные требования к подготовке специалистов предполагают более широкую интеграцию колледжа с работодателями, которые должны стать заинтересованными участниками образовательного процесса. Перед колледжем стоит задача – подготовить профессиональные кадры, востребованные на рынке труда. Для успешной реализации поставленной задачи необходима совместная реализация современных подходов в подготовке будущих специалистов.

Ключевые слова: мегатренды, среднее профессиональное образование, рынок труда, информатизация образования

Вклад авторов: авторы сделали эквивалентный вклад в подготовку публикации.

Заявление о конфликте интересов. Авторы заявляют об отсутствии конфликта интересов.

История статьи: поступила в редакцию 2 октября 2022 г.; доработана после рецензирования 15 декабря 2022 г.; принята к публикации 20 января 2023 г.

Для цитирования: Barannikova A.V., Zaslavskaya O.Yu. Integration of approaches to employer – college interaction using information environment tools in the context of vocational training // Вестник Российского университета дружбы народов. Серия: Информатизация образования. 2023. Т. 20. № 2. С. 198–206. <http://doi.org/10.22363/2312-8631-2023-20-2-198-206>

Problem statement. Global development trends and new requirements of the labor market require the use of modern practical tools in the development of a career direction. The system of secondary vocational education faces a problem in the discrepancy between the competencies of current college graduates and the requirements of potential employers [1]. To solve this problem, it is necessary to integrate new approaches of interaction between employers and professional educational organizations [2].

The works of S.I. Ashmarina, A.M. Izmailova, E.A. Kandrashina [3], A.Yu. Voloshina, O.V. Inshakova [4] and others consider global megatrends and their impact on the education system, which determine the workflow in the future. For the first time, the term “megatrends” was introduced by the American futurist John Nasbit in 1982, the author investigated “the main directions of movement that determine the appearance and essence” [5] of changes in society. Transformation concerns such trends as technological (digitalization, automation) and social (transformation of social institutions, demographic changes). The functional paradigm of education considers the acquisition of new knowledge by a person as a socio-cultural technology that prepares the personnel needed by society [6]. If in the 20th century it was enough to get a specialization that confirmed your knowledge and level of education, then a specialist of the 21st century, regardless of the field of activity, needs to develop: personal qualities, be prepared for the socio-economic situation on the labor market, have the ability to learn/self-educate, develop abilities in emotional and digital literacy [7].

The development of vocational education in the new conditions of labor market transformation poses large-scale tasks to information and communication technologies in order to meet educational needs [8]. This is because the knowledge and skills acquired within the framework of mastering the specialty have a rate of obsolescence and sometimes have nothing to do with the real situation on the labor market [8].

In this regard, employers have a need to reduce the risk of a serious shortage of qualified personnel in their organizations in the future, and to help in the accelerated adaptation of graduates to the needs of business and the economy as a whole [9].

To successfully build a career trajectory in the secondary vocational education, it is necessary to integrate approaches to interaction in the context of “employer – college” at the training stage [10]. On the example of the subject of the Russian Federation, Moscow, organizations were considered (Table), which combine these approaches.

**Integration approaches of employer – college interaction
with the use of information environment tools**

Name of the organization	Link	Mission	Project
Center “My Career”	https://czn.mos.ru/page/центр_моя_карьера	Project of the Department of Labor and Social Protection of the population of the city of Moscow. It is a platform for the introduction of innovative approaches and employment technologies, the center offers customized job search services	Implements the program “Pump up a career” – promoting the formation of a conscious approach to choosing a profession, finding a job and building a career for young people from 14 to 35 years old. Assistance in mastering professional skills that are in demand in the labor market
Center for Professional Qualifications and Employment Promotion “Professional”	https://eduprof.mos.ru/	The objectives of the professional center are: – vocational training and additional vocational education for adults, including unemployed citizens; – providing high-quality educational services to organizations and individuals;	The created training center “Professional”, where you can get free training, including remotely, in the direction of the Employment Center

Table, continuation

Name of the organization	Link	Mission	Project
		– increasing the level of professional knowledge and skills of citizens aimed at training by the employment service bodies, acquiring new professional competencies by them; – improving the business qualities of specialists, preparing them to perform new work functions; – updating of theoretical and practical knowledge of specialists; – bringing the level of qualification of workers in working professions in line with the existing production and social conditions; – formation of professionalism among workers, the ability to work in a market economy; – updating the professional competencies of workers, improving their professional skills; – the study of new equipment and technologies by workers according to the profile of professional activity	
Platform “My Career”	https://career4me.ru/	It is a key tool of the project “Development of Youth Employment Skills in Russia”, which has been implemented by the FOCUS MEDIA Foundation with the support of the City Foundation and the Presidential Grants Fund since 2015. Provides young people with access to online training in communication skills important for employment, self-presentation, interviewing and resume writing, as well as information about potential employers and vacancies. The result of the training is a high-quality resume generated on the platform under the guidance of teachers – curators	There is a module on the platform – “Current vacancies and internships”, with the help of which a participant of training on the platform can find real opportunities to get their first working experience in their region
Portal “Professional self-determination”	https://www.spo.mosmetod.ru/	Implements projects on professional self-determination	Professional internships. Professions of the metropolis. SoftSkills2035 Club
Project “Professional internships”	https://www.spo.mosmetod.ru/quest-routes	A multi-format platform of career guidance events for schoolchildren, students, teachers of metropolitan schools and masters of Moscow colleges. The participants were given the opportunity to get acquainted with the history, production cycle and technologies of Moscow’s leading enterprises, as well as to study in more detail the content of the activities of a number of professions in demand in the modern labor market	The events are aimed at expanding the capabilities of educational organizations to use the urban environment as the most capacious educational resource in all its variety of forms
Professions of the metropolis	https://www.spo.mosmetod.ru/metropolis	The participants of the Career Guidance marathon project “Professions of the metropolis” get acquainted with various areas of professional activity in the capital region, in which specialists are guaranteed to find work in a big city	Professions of the metropolis: employment in the field of IT (passing a professional internship – remotely)

Table, ending

Name of the organization	Link	Mission	Project
SoftSkills2035 Club	https://www.spo.mosmetod.ru/softskills	A unique open space for the development of future competencies	The projects are held in the following formats: – foresight sessions; – strategic sessions (immersion in the Agile philosophy); – trainings; – TED intensive “Territory of professions”
Technograd at VDNH “Career Development Center”	https://technograd.moscow/	Professional navigation and assistance of career consultants	Completion of additional education courses, free of charge, pre-register

The use of information environment tools (Figure 1), used in the interaction of employers and colleges for the training of professional personnel, and gives future graduates the following opportunities.

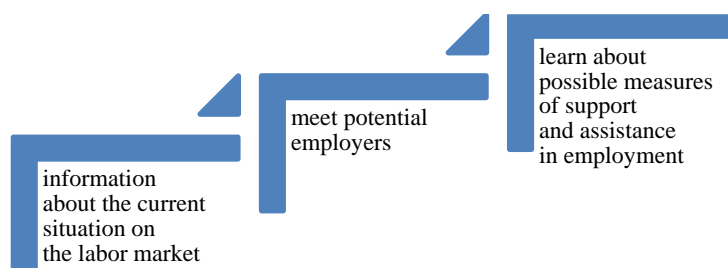


Figure 1. Result of employer – college integration approach for future graduates of the vocational school

Source: compiled by the authors.

Methodology. The methodological basis of the study was the works of Russian and foreign specialists in the field under study, data from websites characterizing activities in the training of professional personnel, which further contribute to the employment of graduates in the labor market.

Results and discussion. Studying the integration of approaches of interaction between employers and colleges allows us to highlight that combining study and work allows students to develop professional and social skills demanded by employers, and attracts more proactive and active students interested in building a successful career. The college and employers are links in the same chain of training specialists [11].

The project “Professional internships”, implemented by the City Methodological Center, since 2016, introduces participants to the leading high-tech enterprises of Moscow. To date, 165 thousand people have attended more than 5,000 events, both online and offline, at 700 enterprises, and every year there are more of them [12].

The My Career platform provides services daily not only for job seekers, but also for employers to find new employees with the appropriate competence, as well as a set of skills and abilities.

For successful integration between employers and applicants from among college students, it is necessary to register on the website *mos.ru* to log in to the *mycareer.moscow* website and use the services:

1. “Pump up your career” – available for young people from 14 to 35 years old, this service is provided in the form presented at Figure 2.

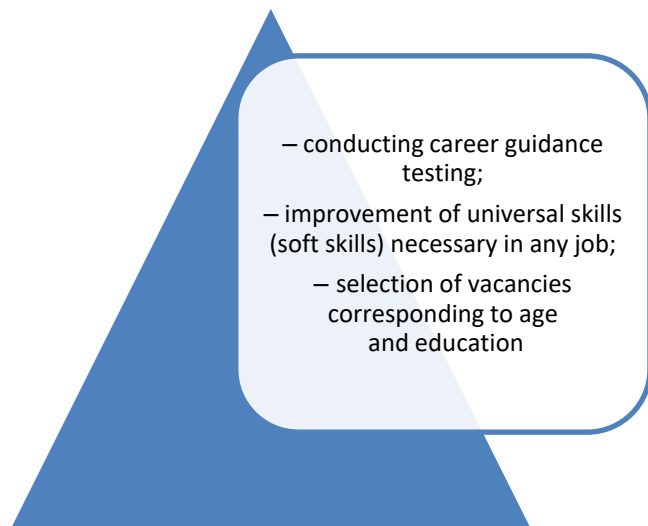


Figure 2. Assistance provided by the service “Pump up your career”

Source: compiled by the authors.

2. “Affordable work” – for persons with disabilities, an individual job search strategy is drawn up and support at all stages, assistance is provided in adapting to the workplace [13].

3. “Self-development” – this module on the My Career platform gives you the opportunity to evaluate your abilities by making the right choice, namely: take part in webinars, study video tutorials (adapted for people with hearing impairment), pass career guidance testing, and get a psychologist's advice and the help of a career consultant [14].

Within the framework of agreements between the center “My Career” and colleges of Moscow in the 2022/2023 academic year, classes are held on the course program “Career Management”. These classes are necessary to improve the efficiency of employment of students and college graduates. In the classroom, students learn the basics of career growth, learn to build an individual career trajectory, as well as competently make up a portfolio.

Taking into account all the above, it is necessary to strengthen the influence of the employer on the educational process, with the possibility to adjust the request for training in a specific specialty and qualification, namely, to form a system of advanced education [15]. These criteria are relevant if we take into account that changes are happening rapidly, and the number of necessary skills is constantly growing [16].

To analyze and make a forecast of the personnel needs of economic sectors, taking into account the emergence of new and changes in existing labor functions of employees of all professional qualification groups, including in real terms and

taking into account the demographic situation [17]. The results of the study can be used at meetings of departments in the areas of training in colleges, methodological meetings, in order to involve all participants in the educational process in the training of professional personnel.

Conclusion. High-quality and modern education, as well as the ability to apply the acquired knowledge are necessary conditions for successful professional activity. Thus, it is obvious that the system of secondary vocational education cannot develop today as a closed system.

Studying the chosen profession, within the framework of professional internships, gives students a unique opportunity to gain new experience and improve professional skills from leading representatives of the capital's companies. The effectiveness of cooperation between the college and the employer in the interests of improving the quality of professional training will increase significantly if all participants in the educational process are interested in improving basic and professional competencies that meet the requirements of the modern labor market.

References

- [1] Yugfeld EA, Pankina MV. Dual education system as a catalyst for successful professional and social adaptation of a future specialist. *Education and Science*. 2014;(3):49–62. (In Russ.)
- [2] Dudyrev F, Maksimenkova O. Training simulators in vocational education: pedagogical and technological aspects. *Education Issues*. 2020;(3):255–276. <https://doi.org/10.17323/1814-9545-2020-3-255-276>
- [3] Ashmarina SI, Kandrashina EA, Izmailov AM. Global megatrends, trends and their impact on the Russian education system. *Trends and Management*. 2017;(2):55–64. (In Russ.) <http://doi.org/10.7256/2454-0730.2017.2.23435>
- [4] Inshakov OV, Valashina AYu. Formation of the concept of megatrends of the evolution of the global economic system. *Economy. Taxes. Right*. 2012;(5):61–70. (In Russ.)
- [5] Naisbitt J. *Megatrends: ten new directions transforming our lives*. New York: Warner Books; 1984.
- [6] Dezhina IG, Klyucharev GA. Secondary vocational education for an innovative economy. *Bulletin of the Institute of Sociology*. 2019;10(1):121–138. (In Russ.) <http://doi.org/10.19181/vis.2019.28.1.560>
- [7] Dudirev FF, Rozhkova KV, Romanova AA, Travkin PV. *Transition “study – work” of students and graduates of secondary vocational education programs: newsletter*. Moscow: HSE University; 2022. (In Russ.)
- [8] Antonova GV, Mirzabalayeva FI, Bondarchuk AG. Problems of employment of graduates of educational organizations in the conditions of the coronavirus pandemic. *Labor Economics*. 2020;7(12):1249–1268. (In Russ.) <http://doi.org/10.18334/et.7.12.111230>
- [9] Mokhin IV. The role of employers in the training of specialists of secondary vocational education (on the example of the Polytechnic College of Sakhalin State University). *Pedagogical IMAGE*. 2016;(2):108–112. (In Russ.)
- [10] Ermashkina IG, Ishteryakova TI. Interaction with the regional labor market as an innovative benchmark for the development of a modern college. *ANI: Pedagogy and Psychology*. 2017;(2):64–67. (In Russ.)
- [11] Dudyrev F, Maltseva V, Romanova O, Petrov E. Assessment of vocational skills and learning outcomes in VET: a review of international initiatives. *Journal of Supranational Policies of Education*. 2021;(13):145–167. <http://doi.org/10.15366/jospoe2021.13.007>

- [12] Eichhorst W, Rodríguez-Planas N, Schmidl R, Zimmermann KF. *A roadmap to vocational education and training systems around the world*. IZA Discussion Papers 7110. Institute of Labor Economics; 2012.
- [13] Kurbatova LN, Belozerova TA. Opinion of heads of enterprises on professional and business qualities of graduates. *Bulletin of PNRPU. Socio-Economic Sciences*. 2017;(4):104–112. (In Russ.) <http://doi.org/10.15593/2224-9354/2017.4.9>
- [14] Heisig JP, Solga H. Secondary education systems and the general skills of less- and intermediate-educated adults: a comparison of 18 countries. Leibniz Information Centre for Economics; 2015. p. 202–225.
- [15] Minyaeva NM. Updating the model of a competitive college graduate. *Bulletin of the Orenburg State University*. 2017;(5):15–21. (In Russ.)
- [16] Nikitin ZN. Employment of graduates as an indicator of the quality of education (on the example of the analysis of data monitoring the employment of graduates of the Yakut College of Culture and Arts). *Traditional Applied Arts and Education*. 2019;(1):68–77. (In Russ.)
- [17] Strikhanov MN, Gevorkyan EN, Podufalov ND. *Innovative processes in professional and higher education and professional self-determination: a collective monograph*. Moscow: Econ-Inform Publ.; 2020. (In Russ.)

Список литературы

- [1] Югфельд Е.А., Панкина М.В. Дуальная система образования как катализатор успешной профессиональной и социальной адаптации будущего специалиста // Образование и наука. 2014. № 3 (112). С. 49–62.
- [2] Dudyrev F., Maksimenkova O. Training simulators in vocational education: pedagogical and technological aspects // Education Issues. 2020. Issue 3. Pp. 255–276. <https://doi.org/10.17323/1814-9545-2020-3-255-276>
- [3] Ашмарина С.И., Кандрашина Е.А., Измайлов А.М. Мировые мегатренды, тенденции и их влияние на систему образования России // Тренды и управление. 2017. № 2. С. 55–64. <http://doi.org/10.7256/2454-0730.2017.2.23435>
- [4] Иншаков О.В., Волошина А.Ю. Формирование концепции мегатрендов эволюции глобальной экономической системы // Экономика. Налоги. Право. 2012. № 5. С. 61–70.
- [5] Naisbitt J. *Megatrends: ten new directions transforming our lives*. New York: Warner Books, 1984.
- [6] Дежина И.Г., Ключарев Г.А. Среднее профессиональное образование для инновационной экономики // Вестник Института социологии. 2019. Т. 10. № 1. С. 121–138. <http://doi.org/10.19181/vis.2019.28.1.560>
- [7] Дудырев Ф.Ф., Рожкова К.В., Романова О.А., Травкин П.В. Переход «учеба – работа» студентов и выпускников программ среднего профессионального образования: информационный бюллетень. М.: НИУ ВШЭ, 2022. 44 с.
- [8] Антонова Г.В., Мирзабалаева Ф.И., Бондарчук А.Г. Проблемы трудоустройства выпускников образовательных организаций в условиях пандемии коронавируса // Экономика труда. 2020. Т. 7. № 12. С. 1249–1268. <http://doi.org/10.18334/et.7.12.111230>
- [9] Мухин И.В. Роль работодателей в подготовке специалистов среднего профессионального образования (на примере Политехнического колледжа Сахалинского государственного университета) // Педагогический ИМИДЖ. 2016. № 2 (31). С. 108–112.
- [10] Ермошкина И.Г., Иштерякова Т.И. Взаимодействие с региональным рынком труда как инновационный ориентир развития современного колледжа // АНИ: педагогика и психология. 2017. № 2 (19). С. 64–67.
- [11] Dudyrev F., Maltseva V., Romanova O., Petrov E. Assessment of vocational skills and learning outcomes in VET: a review of international initiatives // Journal of Supranational Policies of Education. 2021. No. 13. Pp. 145–167. <http://doi.org/10.15366/jospoe2021.13.007>

- [12] *Eichhorst W., Rodríguez-Planas N., Schmidl R., Zimmermann K.F.* A roadmap to vocational education and training systems around the world. IZA Discussion Papers 7110. Institute of Labor Economics, 2012.
- [13] *Курбатова Л.Н., Белозерова Т.А.* Мнение руководителей предприятий о профессионально-деловых качествах выпускников // Вестник ПНИПУ. Социально-экономические науки. 2017. № 4. С. 104–112. <http://doi.org/10.15593/2224-9354/2017.4.9>
- [14] *Heisig J.P., Solga H.* Secondary education systems and the general skills of less- and intermediate-educated adults: a comparison of 18 countries. Leibniz Information Centre for Economics, 2015. Pp. 202–225.
- [15] *Миняева Н.М.* Актуализация модели конкурентоспособного выпускника колледжа // Вестник Оренбургского государственного университета. 2017. № 5 (205). С. 15–21.
- [16] *Никитин З.Н.* Трудоустройство выпускников как показатель качества образования (на примере анализа данных мониторинга трудоустройства выпускников якутского колледжа культуры и искусств) // Традиционное прикладное искусство и образование. 2019. № 1 (27). С. 68–77.
- [17] *Стриханов М.Н., Геворкян Е.Н., Подуфалов Н.Д.* Инновационные процессы в профессиональном и высшем образовании и профессиональном самоопределении: коллективная монография. М.: Экон-Информ, 2020.

Bio notes:

Aleksandra V. Barannikova, postgraduate student, Department of Comparative Educational Policy, Educational and Scientific Institute of Comparative Educational Policy, RUDN University, 6 Miklukho-Maklaya St, Moscow, 117198, Russian Federation. ORCID: 0000-0001-5068-6440. E-mail: a.barannikova1@yandex.ru

Olga Yu. Zaslavskaya, Doctor of Pedagogical Sciences, Professor, Professor of the Department of Informatization of Education, Institute of Digital Education, Moscow City University, 29 Sheremetyevskaya St, Moscow, 127521, Russian Federation. ORCID: 0000-0002-6119-8271. E-mail: zaslavskaya@mgpu.ru

Сведения об авторах:

Баранникова Александра Витальевна, аспирант, кафедра сравнительной образовательной политики, Учебно-научный институт сравнительной образовательной политики, Российский университет дружбы народов, Российская Федерация, 117198, Москва, ул. Миклухо-Маклая, д. 6. ORCID: 0000-0001-5068-6440. E-mail: a.barannikova1@yandex.ru

Заславская Ольга Юрьевна, доктор педагогических наук, профессор, профессор департамента информатизации образования, Институт цифрового образования, Московский городской педагогический университет, Российская Федерация, 127521, Москва, Шереметьевская ул., д. 29. ORCID: 0000-0002-6119-8271. E-mail: zaslavskaya@mgpu.ru