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BRANCH SYSTEMS OF PROFESSIONAL DEVELOPMENT IN THE NATIONAL PROGRAM "DIGITAL ECONOMY" IMPLEMENTATION

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Abstract

The article focuses on a solution to the issue of identifying the results gained from the implementation of continuing professional development programmes within the context of reporting on accomplishments of the Federal Project “Human Resources for the Digital Economy of the National Project “Digital Economy”. The authors find that existing research and practical approaches have never been applied to consider the issue before. On the example of Primorsky Territory, the analysis is given to the financial component which constitutes both the regional segment and the federal project. The article puts forward a way how the advanced in-service training systems for specific economic sectors could be involved in the implementation of the regional segments of the “Human Resources for the Digital Economy” Federal Project. By analysing the main attributes of continuing professional development programmes, in particular, competencies formed, the authors propose the options for matching up the outcomes of continuing education with the “Human Resources for the Digital Economy” Federal Project. The normative approaches to the identification of subject and professional areas in which the continuing professional development programmes are implemented are summarised. Proposals are made on how to overcome the existing situation where the implementation outcomes of continuing professional development programmes cannot be identified for indicators of the “Human Resources for the Digital Economy” Federal Project.

Keywords: Digital economy, personnel training, continuing professional development programme, advanced in-service training, region

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1. Introduction, rationale and significance of the study

Just a few decades ago, computer processing methods and communication technologies for data transmission were used only in a limited range of industries. However, digitalization of almost all areas of human activity is inevitable due to the rapid growth in the production of microprocessor devices, constructing data transmission networks, and upgrading information processing methods. Moreover, at the government level, digitalization is increasingly seen as an essential, key factor in economic and social development. This country, the Russian Federation is no exception.

At the highest level of the government, fundamental documents aimed at accelerating the development of this area have been adopted: Decree of the President of Russia dated of May 7, 2017 No. 204 “On the National goals and strategic objectives of the development of the Russian Federation for the period up to 2024”, Decree of the President of Russia dated of September 5, 2017 No. 203 “On the Strategy for the Development of the Information Society in the Russian Federation for 2017 - 2030”, Order of the Government of Russia dated July 28, 2017 No. 1632-r “Digital Economy of the Russian Federation” Programme. The most significant, in our opinion, in this area, is the “Digital Economy” national project approved on 24 October 2018 by the Presidium of the Presidential Council on Modernization and Innovative Development of the Economy. This national project is decomposed into six federal independent projects, including “Human Resources for the Digital Economy”. It is obvious that along with the need to improve regulation and modernize the information and telecommunications infrastructure, the problem of staffing gaps is becoming a key one. In turn, the “Human Resources for the Digital Economy” Federal Project is cascaded to the level of the constituent entities of the Russian Federation, which, on the one hand, will be the executors of the federal project, and the beneficiaries of highly qualified personnel, on the other.

It is well-known that the term “digital economy” was first coined by American computer scientist of Greek origin Nicholas Negroponte in 1995 to explain the positive effects generated by an economy based on the widespread use of digital technology. In Russia, publications on the digital economy in general and human resources development for the digital economy, in particular, began to appear in large numbers only a few years ago (from our perspective, this is due to the adoption of the regulatory documents mentioned above). Due to the time factor, and also due to the lack of experience in the formation of regional and/or federal stable and successfully functioning training systems for the digital economy, the entire array of publications analysed contains more than 50% reports on scientific forms of various levels. This is reasonable: firstly, the system is just being formed, scientists and practitioners quickly share challenges and try to find the most viable directions of the development; secondly, the implementation indicators of the national and federal projects were published only a few months ago. By the way, these are exactly the problems of achieving some of them that will be discussed below in this article.

The entire array of publications existing at the time of writing this article can be roughly subdivided into several groups. The first one includes the publications of a descriptive nature, in various ways interpreting the main provisions of the normative documents listed above (Alexandrova & Novikova, 2019; Kuladzhi et al., 2017; Toichkin, 2019). Obviously, such publications are not very important for practice. The second group consists of publications which are related to the methodological aspects of personnel training for the digital economy and consider the issues of how the elements of traditional and distance

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education technologies would match up (Dneprovskaya, 2018; Kuznetsova, 2018; Sannikova, 2018; Skibitsky & Fadeykina, 2018), as well as justify the growing importance of information and communication technologies (Dudorov, 2018; Mishunenkova, 2020; Urintsov et al., 2018; Vlasov, 2019). Nevertheless, the publications noted are also mainly descriptive and do not contain practical recommendations on the implementation of regional aspects of the "Human Resources for the Digital Economy" Federal Project.

For the topic of this study, publications devoted to the role of higher and continuing education in training personnel for the digital economy at the regional level are of most interest. So, in terms of setting goals for higher education institutions, as well as updating approaches to managing them in modern conditions, the studies made by Khalin and Chernova (2019) are worth mentioning. The studies by Vershinina et al. (2019) are devoted to the issues of maintaining a balance between higher and continuing education. Obviously, the essential side of the issue of training personnel for the digital economy will be the building of specific competencies and assessment of their mastering, therefore the publications on this subject (Akhmetova, 2019; Azimova, 2019; Denisova, 2019; Muzychenko, 2019) are not ignored. Further, within this study, the issue of forming competencies will be considered in detail in the context of regulatory framework.

As noted before, regional training programmes for the digital economy are the part of the "Human Resources for the Digital Economy" Federal Project which is included in the national project "Digital Economy". The Regional Project of the Primorsky Territory "Human Resources for the Digital Economy" defines the key indicators for 2020 and 2021: the number of graduates of the professional education system with the essential competencies of the digital economy is 3250 and 3360 people, respectively; the number of specialists trained according to the digital economy competencies as part of continuing education is 6800 and 8180 people respectively (The official website of the Primorsky Territory government, 2020). Thus, the issues of training personnel with "digital" competencies are becoming measurable. Consequently, a new task is being formulated for sectoral advanced in-service training systems, both at the level of educational content and at the level of reporting, which at present does not correspond formally to the approaches defined by the Government of the Russian Federation for continuing education.

2. Problem statement

In view of the foregoing, there is evidence of a serious national economic problem: the advanced in-service training systems for specific economic sectors are currently based on the regulatory framework for the implementation of continuing development programme (CPDP) in terms of conditions for implementation, structure, content, reporting, etc. At the same time, they should participate in the implementation of the regional projects for training within the framework of the "Digital Economy" national project, which has its own approaches to the implementation of conditions, structure, content and reporting. However, the regulatory frameworks for continuing education and for the national project "Digital Economy" do not match up and the CPDP main attributes mentioned above explicitly point to that fact. Such an imbalance, in our opinion, could hinder both the development of sectoral systems for continuing professional training and the implementation of the national project. It is crucial to overcome, "to expand" these inconsistencies now, at the very beginning of the implementation of the "Digital Economy" national project. As part of this study, we are focusing on one component – the possibility of

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identifying continuing development programmes under the advanced in-service training systems for specific economic sectors with the purpose to define them as the programmes that contribute to building competencies for the digital economy.

3. Theory

As noted above, in 2020 and 2021 in the Primorsky Territory, 14.980 people are to be trained in digital competencies as part of continuing education. Nowadays there is no need to justify the importance of building digital skills in people for the region. The issues of involving the advanced in-service training systems for specific economic sectors within the framework of the implementation of regional training projects have been discussed by us before, however, the specific forms of collaboration have not been visible so clearly yet (Sorokin & Sorokin, 2020). At present, it is obvious that there is an objective necessity to incorporate the advanced in-service training systems for specific economic sectors into the implementation of the regional part of the Federal Project "Human Resources for the Digital Economy". The project manager from the Italian university Folkuniversitetet Arturo Campanella called the current situation "an era of continuing education" (Campanella, 2009). The advanced in-service training systems for specific economic sectors embrace training facilities, learning content, and teachers, though they operate according to predetermined training curricula. How is it possible to train at least part of the nearly fifteen thousand people within the framework of these systems during two years in addition to their training curricula which must be also delivered? In our view, the training of additional groups would be possible on a fee-paying basis. However, the Primorsky Territory has not received funding for the implementation of the "Human Resources for the Digital Economy" Federal Project for 2020, neither funds were allocated in 2021 (The official website of the Primorsky Territory government, 2020). Hence, the "Human Resources for the Digital Economy" Federal Project (at least in part) would have to be implemented by using the existing advanced in-service training systems for specific economic sectors without a substantial upgrading. It would be unlikely to be possible to incorporate modules for building digital competencies into various programmes for continuing education, owing to the difficulty of coordinating and adopting the CPDP content. For reporting on the implementation of the "Human Resources for the Digital Economy" Federal Project those CPDPs implemented for economic sectors which directly or indirectly are aimed at building digital competencies is most likely to be selected. So here a serious problem arises in identifying the results.

4. Practice application

According to the Methodological Guidance on Calculating the Indicators of the "Human Resources for the Digital Economy" Project approved by Order of the Ministry of Economic Development of the Russian Federation dated 01.24.2020 No. 41, specialists who have been retrained in the competencies of the digital economy as part of continuing education are considered as persons who, in order to improve and (or) gain a new key competence of the digital economy ... have completed advanced in-service training programmes, professional retraining programmes in any field according to the list of Appendix No.1 to this Guidance (Consultant-Plus legal database, 2020a). In turn, this Appendix No.1 contains twenty-two areas

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in which advanced in-service training and professional retraining programs are being implemented, from Big Data to Electronics and Radio Engineering.

Appendix No. 2 to the Guidance on calculating the indicator "The number of specialists retrained in the competencies of the digital economy in the framework of continuing education" has a description of the five key competencies for the digital economy. Thus, in order for a specialist who successfully completed CPDP to be considered retrained in the competencies for the digital economy as part of continuing education, two conditions must be met simultaneously: first, the CPDP must be designed to build at least one key competency for the digital economy; secondly, CPDP should be referred to one of the twenty-two areas indicated in Appendix 1 to the Guidance.

The criteria mentioned above are clear and easy to understand. And even, the first thing makes us think that they are easy to accomplish in formal way. However, this is only one side of the coin. Now we turn to another regulatory document governing the implementation of CPDPs in this country. We are talking about the Procedure for organizing and implementing educational activities for continuing professional development programmes, approved by Order of the Ministry of Education and Science of the Russian Federation dated of July 1, 2013 No. 499 (hereinafter – the Procedure) (Consultant-Plus legal database, 2020b).

First, let us dwell on the issue of competencies. According to the requirements of clause 6 of the Procedure, the CPDP "must include the list of professional competencies description within the framework of the available qualifications, a qualitative change in the development of which is carried out as a result of training". That is, part of the competencies specific to any qualification is taken as the basis. Further, when completed the CPDP, both the result of mastering these competencies and these competencies themselves are supposed to change qualitatively. This is the actual result of the training.

It is obvious that the list of key competencies of the digital economy from Appendix No. 2 to the Guidance for calculating the indicator "The number of specialists retrained in the competencies of the digital economy as part of further education" does not meet the requirements of the Procedure. This is easily explained. On the one hand, the difference in the publication of documents is seven years, on the other hand, the competencies of the digital economy are universal in nature, it is objectively difficult to attribute in a pure form any qualifications. Here, in our opinion, the reverse method can be applied when the competences of the digital economy can be introduced into the description of certain qualifications. We analyzed all five digital competencies and came to the conclusion that all of them can be included in the description of all qualifications. Until this is done, the issue of identifying competencies in the CPDP for classifying specialists who have mastered them as "undergoing retraining in the competencies of the digital economy as part of continuing education" remains unresolved.

The second issue, in our view, is the assignment of a specific CPDP to any of twenty-second areas for calculating the indicator "The number of specialists retrained in the competencies of the digital economy in the framework of continuing education". Currently, in shaping the CPDP in compliance with the Procedure for organizing and implementing educational activities for continuing professional development programmes, there is no requirement to classify a specific CPDP as a certain "area". According to the Roskomstat requirements to complete the reporting form No. 1-PK (Order dated of December 20, 2019 No. 786), all CPDPs are subject to be classified and linked to the certain types of economic activity (Consultant-

Plus legal database, 2020c). Sections 2.3.1 (advanced in-service training programs) and 2.3.2 (professional retraining programs) contain twenty-one types of economic activity – from "Agriculture, forestry, hunting, fishing and fish farming" to "Activities of extraterritorial organizations and bodies". It is evident that this list of types of economic activities has little consistency with the areas in which CPDP should be implemented in terms of training specialists for the digital economy. Here, in our opinion, it is necessary to link the areas of the digital economy to the types of economic activity, as well as to identify the CPDP within this hierarchy.

5. Practical application

As it was emphasized earlier, currently there are difficulties in identifying CPDP in terms of identifying both competencies and areas of economic activity in order to achieve key targets of the "Human Resources for the Digital Economy" Federal Project. The proposes that we have made are supposed to contribute to the transformation of the advanced in-service training systems for specific economic sector, as well as to the achievement of the indicators required.

6. Conclusion

Thus, based on the study of the regulatory framework for organizing continuing education and implementing the "Human Resources for the Digital Economy" Federal Project, practical steps have been taken to make it possible to correlate more accurately the results of educational activities of advanced in-service training and retraining systems for the digital economy.

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