Online Education in the Russian Arctic: Employers' Confidence and Educational Institutions' Readiness

Konstantin S. Zaikov [1],*, Aleksandr A. Saburov [2], Aleksandr M. Tamitskiy [1] and Aleksey S. Nikiforov [2]

1 Department of Regional Studies, International Relations and Political Sciences, Northern (Arctic) Federal University Named after M.V. Lomonosov, 163002 Arkhangelsk, Russia; a.tamitskij@narfu.ru

2 Institute for Strategic Development of the Arctic, Northern (Arctic) Federal University Named after M.V. Lomonosov, 163002 Arkhangelsk, Russia; a.saburov@narfu.ru (A.A.S.); a.nikiforov@narfu.ru (A.S.N.)

* Correspondence: k.zaikov@narfu.ru; Tel.: +7-953-2660586

Abstract: The rapid spread of online learning demonstrates that it is becoming one of the trends in the development of vocational education in the modern world. Along with the obvious advantages of online learning such as cost reduction, cross-border opportunities for receiving it, and adaptability for students, educational institutions encounter specific difficulties: a lack of optimal teaching methods, inflexibility of the institutional environment to the use of new teaching technologies, the transformation of communication between teachers and students, and technological unpreparedness for the development of online learning. At the same time, the need to solve the problem of accessibility of education and fill the shortage of labor resources in Russia, in particular its Arctic zone (AZRF), will contribute to the spread of online learning practices. To consider developing online education, this article, on the one hand, presents the results of a study of the regional employers' confidence in education in a non-traditional format and, on the other hand, shows the readiness of vocational educational institutions to implement training programs in a distance format. The main research method was a questionnaire survey, in which 2240 organizations and 344 professional educational institutions located in the Russian Arctic took part. The survey results indicate that more than half of employers (58%) declared the applicability of online learning in the Russian Arctic, but about 40.6% of companies do not consider applicants with a diploma from online education. At the same time, employers' confidence in distance learning in higher education is lower than in vocational secondary education. Additionally, the majority of institutions of higher education (62.5%) believe in the possibility of using distance education in the Russian Arctic, while organizations of vocational secondary education (64.98%) have the opposite opinion. Based on the results of the study, recommendations for federal and regional authorities were prepared.

Keywords: online education; distance learning; the Arctic region; educational institutions; employers

1. Introduction

Discussions about online learning in education have been active for several decades. The development of technology platforms is increasingly driving the explosive growth of online learning [1], while the popularity of distance learning as a distinct lifestyle is becoming more evident [2].

During the COVID-19 pandemic, many companies and educational institutions switched over to remote learning, becoming participants in a large-scale "experiment" to introduce online education. Minimizing social interaction was considered as a factor in reducing the spread of infections [3]. In March 2020, 1.2 billion students in 186 countries found themselves outside of their educational institutions, and the volume of the online education market in 2020 exceeded USD 250 billion. Additionally, the predicted value of its growth will be about 21% in the period until 2027 [4].

The explosive growth in the volume of online learning has provoked controversy around issues related to ensuring the quality of teaching, the development of new teaching

methods, the nature of communication between students and teachers, and institutional barriers concerning changes in the timing of the educational process and obtaining qualifications. At the same time, in practice, teachers and students face a large number of technical, social, and financial problems [5,6].

Feedback from students, the development of differentiated teaching and grading practices, the recording of online lectures, and the academic support of students are considered as the key factors for quality online education and increasing student satisfaction with learning [7].

Data from surveys of online students indicate the convenience of mastering the educational program at their own pace but, at the same time, this format of education is inferior to classroom teaching [8]. In addition, students note that online learning has a negative impact on health and social interaction [9].

In general, the online learning format in scientific research is considered as an alternative to classroom learning without compromising its quality [10]. According to the rector of the Higher School of Economics, Yaroslav Kuzminov, the introduction of online courses can replace low-quality distance education courses at the university, and the money can be redirected to the creation of scientific laboratories [11].

In other cases, the epithet "diploma factory" has been applied to educational institutions that have institutional barriers to creating conditions for high-quality learning of an educational program in a distance format [12]. At the same time, the inferiority of communication in the process of distance learning between teachers and students is emphasized [13].

The rector of the European University at St. Petersburg, Vadim Volkov, notes that online education can act as an addition, but not a replacement for traditional education. Complete remote learning, in many cases, cannot replace practice-oriented training, ensure socialization and education of students, form networks of friendly contacts for the future, or create a holistic lifestyle that changes a person. In his opinion, the leading universities are unlikely to decide to "trade" full-fledged diplomas for distance learning, but the sale of individual courses, additional programs, and various certificates will increase [14].

Discussions about the quality of education [15] may have an impact on the credibility of different educational formats among students, clients of educational services, and employers. When looking for candidates for vacancies, employers determine the criteria for selection, recruitment, and hiring techniques [16].

When recruiting, employers pay more attention to the qualifications, experience and skills of a specialist [17], interpersonal skills, and reputation of the university, sometimes demonstrating negative bias towards new universities [18]. At the same time, the level of education is one of the conditions for employment and the basis for career trajectories [19]. The very format of obtaining an education can have an impact on employment opportunities. Employer surveys show that hiring decision makers rate traditional education more positively than online education [20]. A negative attitude towards it associates it with a lower level of education quality, fragmentation of the courses studied, insufficient opportunity to develop competencies for a career, as well as a high risk of the spread of academic dishonesty among students [21].

With the existing effect of distrust in online education, employers impose such requirements on employee training as reducing the cost of implementing educational programs, ensuring transparency of training content, and increasing confidence in learning outcomes, as well as the release of demanded human resources for corporate activities and replenishing missing resources [22].

Thus, the advantages and disadvantages of distance learning for consumers, developers, suppliers, and organizers of the educational process and other stakeholders are due to various factors that are combined into the following groups: economic (lower cost of training, but costs for hardware and software are required); social (the possibility of obtaining a prestigious certificate or diploma without leaving home, but this is impossible without a high degree of self-organization of the student); organizational (the process

of monitoring training is simplified); and meaningful (there is a possibility of multiple repetition of the material) [23].

Russian legislation provides for the possibility of online education. Based on Chapter 2 of Art. 16.1 of the Federal Law of 29 December 2012 No. 273-FZ "On Education in the Russian Federation", e-learning means the organization of educational activities using the information contained in databases for educational programs and information technologies, technical means, providing its processing, as well as information and telecommunication networks that ensure the transmission of this information over communication lines, and the interaction of students and teachers [24].

Organizations can implement educational programs or their parts exclusively using e-learning, distance learning technologies, organizing training sessions in the form of online courses that provide students, regardless of their location and organization in which they master the educational program, the achievement and assessment of results of training by organizing educational activities in an electronic information and educational environment to which open access is provided via the Internet.

The applicability of online education in the Arctic zone of the Russian Federation (AZRF) is significantly influenced by its specificity of settlement and socio-economic development. On the one hand, low population density and the presence of remote settlements with a low level of development in educational and social infrastructure [25] are prerequisites for the development of distance learning, which can itself contribute to responding to these challenges. At the same time, the problem of the topic is reinforced by the growing imbalance between the demand and supply of labor resources in the Russian Arctic [26] and the widespread manifestation of emigration sentiments of students at universities in the Arctic region [27].

At the same time, an objective obstacle to the development of e-learning is the limited share of households with broadband Internet access (81.3% in 2019) [25]; most of them live in large cities and metropolitan areas with a developed education system. An additional limitation to the development of online education may be the low level of employers' confidence in graduates with distance education certification.

To study the possibility of developing online education for training specialists for the needs of the economy and social sphere of the Russian Arctic, it is necessary to study, on the one hand, regional employers' confidence in education in a non-traditional format and, on the other hand, the readiness of the network of vocational educational institutions to implement training programs in a distance format.

2. Materials and Methods

Sociological data on the development of online education and the opinions of employers were obtained within the framework of applied research work on the topic: "Compliance of the existing network of educational institutions of vocational secondary and higher professional education with the staffing needs of employers operating in the Arctic zone of the Russian Federation, and prospects development of personnel policy in the Arctic zone of the Russian Federation". This project was implemented by the Petrozavodsk State University (Russia, Republic of Karelia) together with the Northern (Arctic) Federal University named after M.V. Lomonosov (Russia, Arkhangelsk) under the guidance of Professor V.A. Gurtov.

The questionnaire toolkit was developed by specialists of Petrozavodsk State University (V.A. Gurtov, I.S. Stepus, A.V. Simakova), and the survey was carried out jointly by the project team.

Section 5, "Online education for the Arctic zone of Russia", of the questionnaire for employers was aimed at determining the applicability of the practice of obtaining professional education online for the conditions of the Arctic zone, the degree of acceptability of the existing online education system, and the willingness to hire a specialist with a diploma from a professional online education. These variables of the questionnaire were tested in previously conducted sociological studies among organizations [17].

Section 4, "Online education", of the questionnaire for vocational education organizations contained variables aimed at determining the acceptability of online learning practice, its compliance with the requirements for the Arctic regions, the possibility of distance learning in a number of specialties, and an opinion on the willingness of employers to hire graduates of distance educational programs to vacancies.

The questionnaires used closed-ended questions for further quantitative analysis of data and generalization of information [20].

The sample includes a total of 2240 organizations from all entities that form part of the Russian Arctic. Data on the number of interviewed employers in each region are presented in Figure 1.
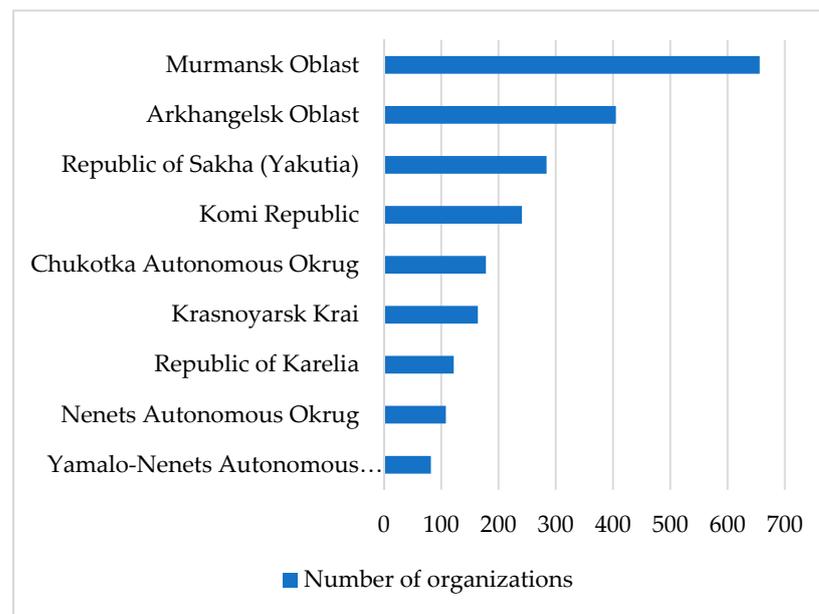
Figure 1. The number of employing organizations that took part in the survey, by subjects of the Russian Arctic, n = 2240.

Figure 2 presents data on the number of organizations by type of economic activity.

The sample of vocational educational institutions is represented by 344 institutions, including 277 organizations of secondary vocational education and 67 of higher education. Figure 3 shows the distribution of institutions by the subjects of the Russian Arctic.

The survey of employers of the Russian Arctic was carried out from June to September 2020, and organizations of secondary and higher professional education were sampled from August to October 2020 by sending them invitations to participate in the study, including instructions and links to the information system for filling out the questionnaire forms.
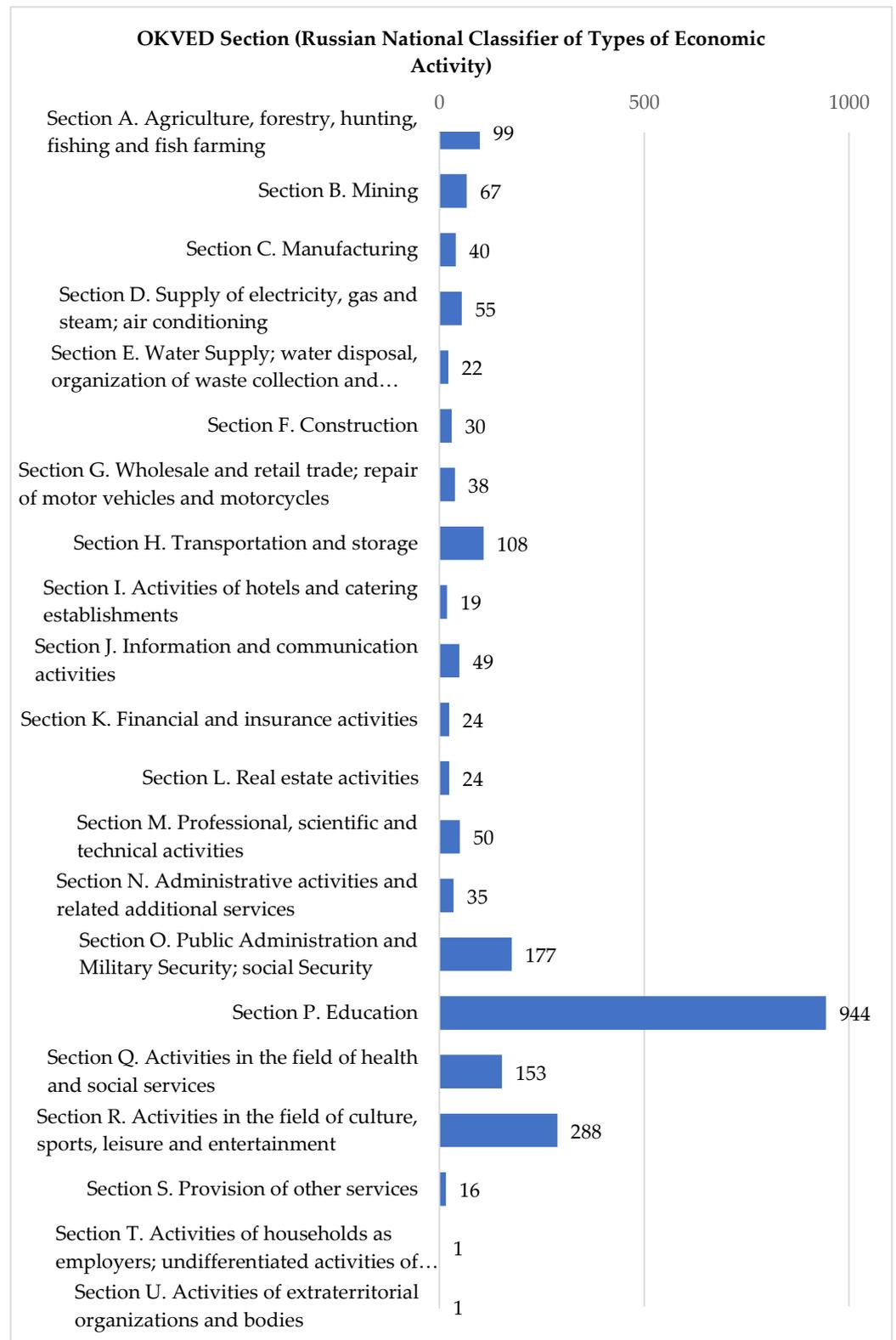
Figure 2. The number of employing organizations that took part in the survey by OKVED, in units, n = 2240.
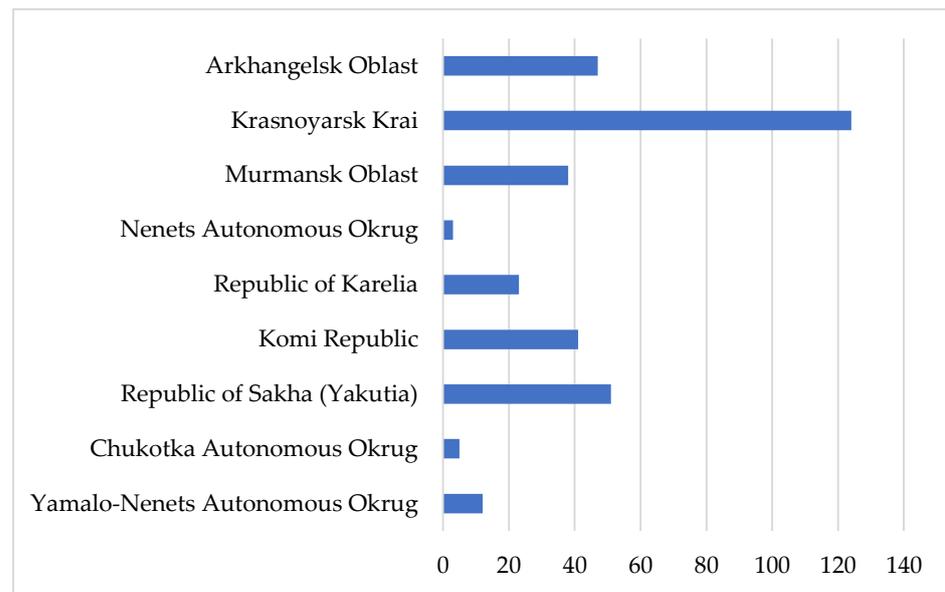
Figure 3. The number of vocational educational institutions that took part in the survey, by subjects of the Russian Arctic, n = 344.

3. Results

More than half of employers (58%) declared the applicability of online education in the Russian Arctic. This share in the context of regions as a whole does not change, with the exception of the Chukotka Autonomous Okrug, where two thirds (66%) of the respondents stated the possible advantages of distance education (Figure 4).
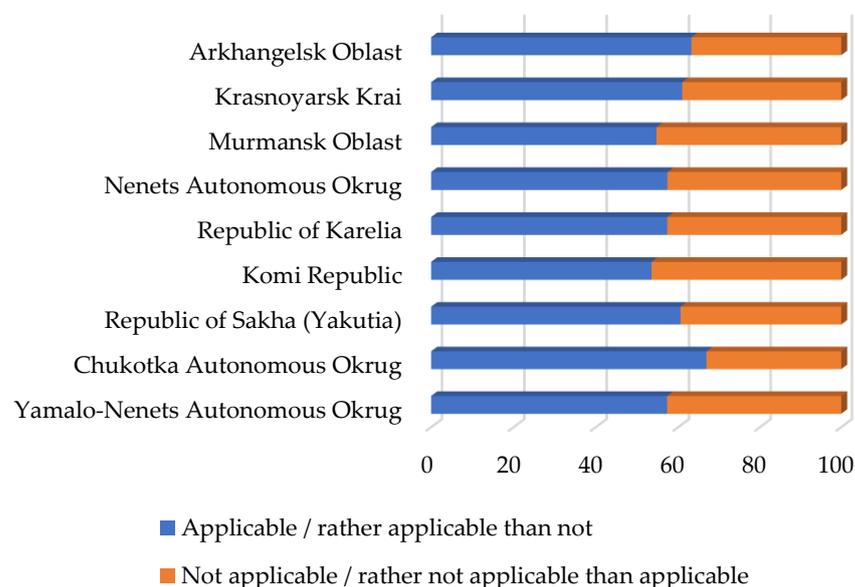
Figure 4. Attitude of employers to the applicability of online education in the context of the subjects of the Russian Arctic, in %.

By type of economic activity, the largest share of employers who positively consider the applicability of online education relates to information and communication activities (69%), water supply, wastewater disposal, waste collection and disposal, pollution elimination activities (68%), processing industries (65%), as well as to professional, scientific, and technical activities (about 68%). The most pessimistic on this issue are the enterprises from the areas of "administrative activities and related additional services" (48.57%) and

"financial and insurance activities" (45.83%), despite the fact that there is a high level of digitalization in finance and insurance.

When asked about the correspondence of the online education system to the one that would be successful and applicable for their organization, employers answered identically. About 58.7% of employers noted that the existing online education system is consistent with the ideas of success and acceptability for their organizations. The ratio of the shares practically did not change either in the context of the constituent entities of the Russian Federation or in the context of the types of economic activity (the deviation was in the range of 0.01–2.91%).

When asked about the readiness to hire a specialist who has a diploma from an online form of professional education, the opinions of employers were divided. About 16.3% of organizations already have such specialists on their staff, and 43.1% of employers are considering such an opportunity, provided that the applicant successfully passes entrance examinations (interviews) and a probationary period. At the same time, 40.6% of companies do not consider applicants with a diploma from an online education platform. This generalization of unequal attitude toward online and traditional diplomas correlates with similar surveys [20].

Small differences in educational levels were revealed: employers are less willing to hire candidates with "online diplomas" for positions requiring higher education, and welcome such applicants for positions requiring vocational secondary education in programs for training mid-level specialists. This circumstance may be associated with a large shortage of blue collar workers.

In the context of the regions, companies from the Republic of Karelia and the Republic of Sakha (Yakutia) are the most positive in terms of the recruitment of a specialist with a professional diploma from an online platform. The least optimistic are the organizations of the Arkhangelsk Oblast and the Yamalo-Nenets Autonomous Okrug (Figure 5).
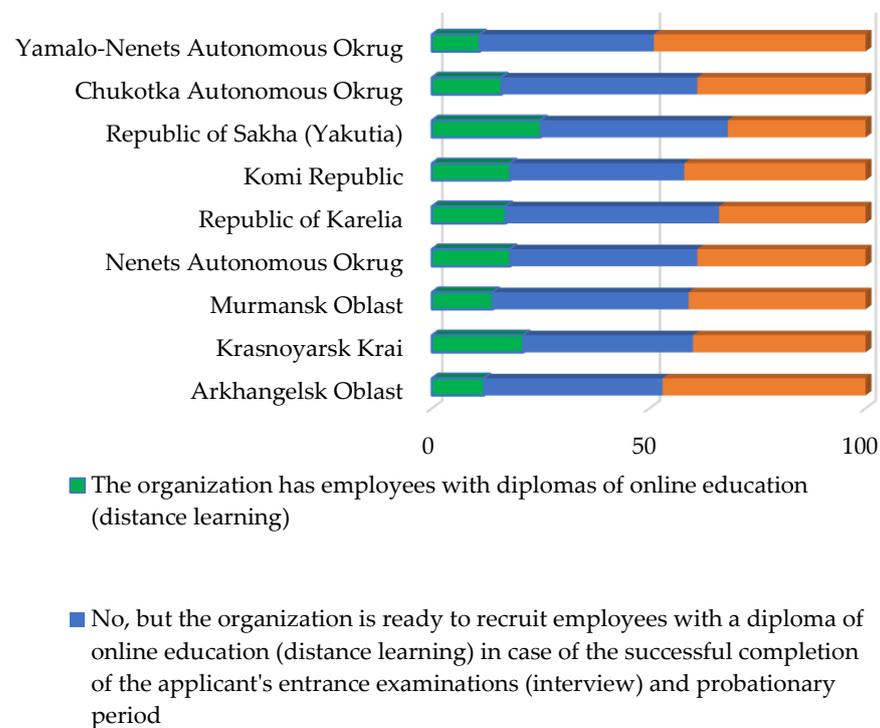
Figure 5. Willingness of employers of the Russian Arctic to hire a specialist with a professional diploma granted by an online platform, by regions, in %.

The answers of employers to the same question are multivariate, depending on the type of their economic activity. The impossibility of considering applicants with an

online education diploma was mainly stated by organizations working in the fields of mining (53%), manufacturing (51%), water supply (52%), construction (51%), transportation and storage (55%), and real estate (58%). Employers in the following types of economic activities declared their readiness to hire such candidates: the activities of hotels and catering establishments (63%), activities in the field of information and communications (63%), and financial and insurance activities (75%). A noteworthy fact was that there was a certain discrepancy in the answers to previous questions from employers in the water supply sector (68% stated the applicability of online education) and finance (only 46% supported the idea of the applicability of distance learning). Perhaps this is due to the lack of a clear understanding of the various forms of distance education.

A survey of educational institutions of higher and vocational secondary education operating in the Russian Arctic revealed the following results of work. Unlike employers, organizations of secondary vocational education (64.98%) believe that the practice of obtaining an online education is not applicable to the conditions of the Arctic region. At the same time, a significant difference was recorded in the answers of organizations of higher education. On the contrary, most of them (62.5%) believe in the possibility of using distance education in the Russian Arctic. In the context of the regions, only in the Yamalo-Nenets Autonomous Okrug (54.55%) and the Republic of Karelia (60.87%) did the majority of educational organizations recognize the applicability of this form of education (Figures 6 and 7).
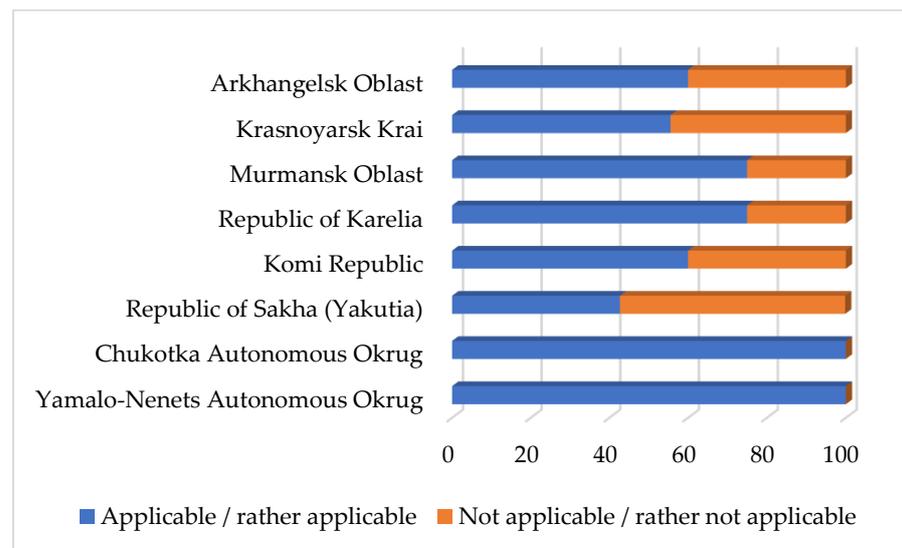
Figure 6. The attitude of higher education institutions towards online professional education for the Russian Arctic conditions, in %.

It is important to note that the question did not indicate whether it was about transferring the entire educational process to a distance format or only a part of it. It was possible that the surveyed organizations answered only the question regarding the complete transition to online learning.

According to educational organizations, the practice of distance learning is most applicable for the following enlarged groups of specialties: economics and management (the specialties of this group were named 73 times), computer science and computing (28 times), service and tourism (19 times), jurisprudence (18 times), education and pedagogical sciences (17 times), and applied geology, mining, oil and gas business and geodesy (15 times). Moreover, educational organizations did not indicate specific forms of online learning when answering this question. Thus, there is no information on whether educational organizations consider all forms of e-learning acceptable, according to the specified enlarged groups of specialties, such as full-fledged diplomas of online learning, blended learning, and open online courses.
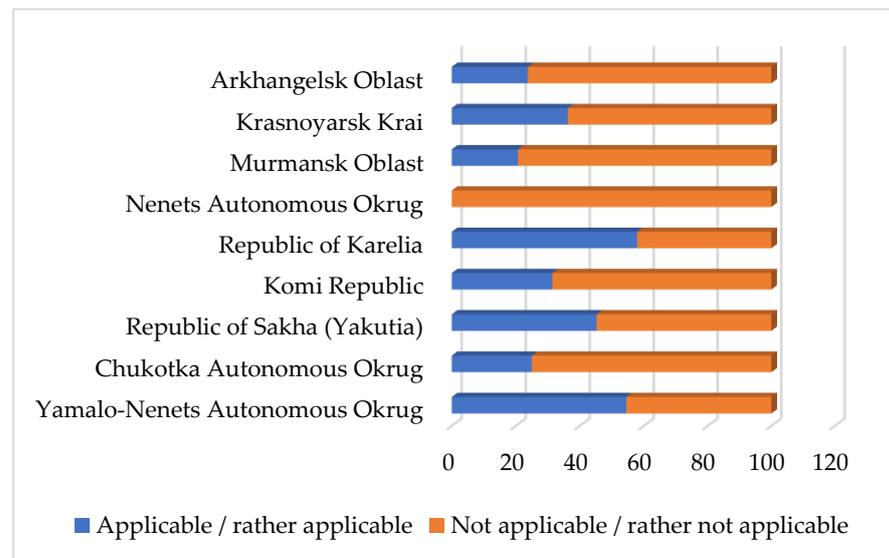
Figure 7. The attitude of organizations of vocational secondary education towards online professional learning for the Russian Arctic conditions, in %.

When asked about the possibility of switching to distance learning in a number of specialties, a majority of institutions of higher education indicated this as a possibility (60%). Institutions of vocational secondary education, on the contrary, demonstrated pessimism on this issue, pointing out the impossibility or rather the impossibility of switching to distance learning in a number of specialties (64.19%).

Similarly, specialties for which educational organizations considered such an opportunity were distributed: economics and management (specialties of this group were named 51 times), informatics and computing (20 times), service and tourism (18 times), jurisprudence (14 times), education and pedagogical sciences (21 times), and applied geology, mining, oil and gas business and geodesy (13 times).

In general, respondents from educational organizations assess the compliance of the online education system of their organizations rather highly in relation to the requirements for this system in the Arctic regions (Figure 8).
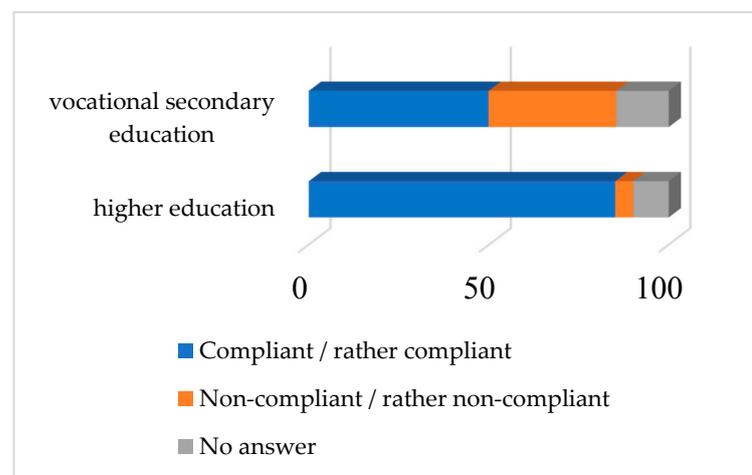
Figure 8. The opinion of educational organizations on the compliance of the online education system with the Arctic regions requirements, by education level, in %.

Yamalo-Nenets Autonomous Okrug (100%), the Republic of Sakha (Yakutia) (73.40%), and the Republic of Karelia (60.80%) rate their online education systems as very high. This

indicator is at a rather low level in the Nenets Autonomous Okrug (33.3%) and Chukotka Autonomous Okrug (40%).

4. Discussion

The skepticism of educational organizations regarding the applicability of online education for the Arctic territories is partially confirmed by their low level of readiness to hire a specialist with an online education diploma; only 27.68% of organizations are ready to do this. At the same time, the share of university representatives who are positively disposed on this issue is slightly higher (35%) than the share of colleges and technical schools (26.69%). Among the subjects, the Yamalo-Nenets Autonomous Okrug (only 18.18% are ready to apply this practice) and the Chukotka Autonomous Okrug (20%) stand out on this issue. The highest indicator of readiness for adoption is shown by the Komi Republic educational organizations—37.5%.

Learning with the use of distance technologies today is becoming an integral part of the educational process, including higher and vocational secondary education.

The key advantages of e-learning, especially significant for the Russian Arctic, are the lower cost of training, the possibility of receiving quality education remotely, and unlimited access.

According to the survey findings of educational organizations, the use of online learning is most applicable in the fields of economics and management, computer science, service and tourism, law, education and pedagogical sciences, and applied geology, mining, oil and gas business and geodesy.

According to the study, most AZRF employers already have an employee with an online education diploma on their staff or are ready to accept such a job seeker. However, the share of pessimistic employers is quite high, which requires a change in attitude towards online education and a decision on the question of how qualifications are awarded by educational institutions [2].

At the same time, online learning has a number of significant limitations. First, distance education, in many cases, cannot replace practice-oriented training [28] and ensure the socialization of students. Secondly, distance education requires a corresponding development of the information and communication infrastructure: the availability of high-speed Internet access and access to teaching aids (personal computers, platforms, and resources for online learning). This problem is especially relevant for organizations of vocational secondary education. Thirdly, since online learning requires the appropriate skills of students and a high level of their self-organization, it is necessary to provide high-quality methodological support for this process [29].

Thus, it is possible to form the following recommendations for federal and regional authorities:

- To provide access to high-speed Internet for residents of the regions of the Russian Arctic;
- Modernize the digital environment of educational organizations of the Russian Arctic and provide access to modern platforms of distance education;
- To study the possibility of creating distance learning resource centers on the basis of regional universities of the Russian Arctic for training pedagogical personnel in the region;
- To stimulate and support the implementation of educational programs in a network form, including distance formats, in educational institutions of higher and vocational secondary education located in the territory of the Russian Arctic and leading Russian educational institutions.

5. Conclusions and Future Research

The results of the study indicate the widespread use of distance learning technologies in vocational education. However, the further development of online education in the Russian Artic will be associated with contradictions between the reduction in economic

costs of training and the risk of a decrease in the quality of education; with the possibility of remote education and the lack of practice-oriented training of specialists; with the adaptability of online education and the lack of resources for high-quality methodological support of the educational process; and finally, with the rapid training of specialists in professions with shortages and the inadequacy of their competencies for work in the Arctic.

Further research prospects are associated with identifying mechanisms and technologies for optimizing the implementation of online vocational education to meet the trust and interests of employers and students, as well as to overcome the imbalance in training personnel for the needs of the economy and social sphere of the Russian Arctic.

Author Contributions: Conceptualization, A.A.S.; methodology, A.A.S.; validation, A.M.T.; investigation, A.A.S. and A.S.N.; data curation, A.S.N.; writing—original draft preparation, A.M.T.; writing—review, and editing, A.M.T., A.A.S. and K.S.Z.; project administration, A.A.S. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the Autonomous non-profit organization "Agency for the Development of Human Capital in the Far East and the Arctic" and was carried out within the framework of the project "Compliance of the existing network of educational institutions of vocational secondary and higher professional education with the staffing needs of employers operating in the Arctic zone of the Russian Federation, and prospects development of personnel policy in the Arctic zone of the Russian Federation" (No. COM15052000041).

Data Availability Statement: The data presented in this study are available on request from the corresponding author.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Bernard, R.M.; Abrami, P.C.; Borokhovski, E.; Wade, C.A.; Tamim, R.M.; Surkes, M.A. A meta-analysis of three types of interaction treatments in distance education. *Rev. Ed. Res.* **2009**, *79*, 1243–1289. [CrossRef]
2. Ragusa, A.T. The impact of socio-cultural factors in multi-cultural virtual communication environments: A case example from an Australian university's provision of distance education in the global classroom. In *Linguistic and Cultural Online Communication Issues in the Global Age*; St-Amant, E., Ed.; Idea Group Inc.: Sydney, Australia, 2007; Chapter 18; pp. 306–327. [CrossRef]
3. Jackson, C.; Vynnycky, E.; Mangtani, P. The relationship between school holidays and transmission of influenza in England and Wales. *Am. J. Epid.* **2016**, *184*, 644–651. [CrossRef]
4. Global Market Insights Inc. Available online: https://www.gminsights.com/industry-analysis/elearning-market-size (accessed on 1 April 2021).
5. Jæger, M.M.; Blaabæk, E.H. Inequality in learning opportunities during Covid-19: Evidence from library takeout. *Res. Soc. Stratif. Mobil.* **2020**, *68*, 100524. [CrossRef]
6. Lassoued, Z.; Alhendawi, M.; Bashitialshaaer, R. An exploratory study of the obstacles for achieving quality in distance learning during the COVID-19 pandemic. *Ed. Sci.* **2020**, *10*, 232. [CrossRef]
7. Mahmood, S. Instructional Strategies for Online Teaching in COVID-19 Pandemic. *Hum. Behav. Emerg. Tech.* **2021**, *3*, 199–203. [CrossRef]
8. Ragusa, A.T.; Crampton, A. Online learning: Cheap degrees or educational pluralization? *Br. J. Ed. Tech.* **2016**, *48*, 1208–1216. [CrossRef]
9. Chakraborty, P.; Mittal, P.; Gupta, M.S.; Yadav, S.; Arora, A. Opinion of students on online education during the COVID-19 pandemic. *Hum. Behav. Emerg. Tech.* **2020**, 1–9. [CrossRef]
10. Ramirez, G.B. The global dimensions of quality assurance in higher education. *Int. J. Tech. Ed. Mark.* **2013**, *3*, 15–27. [CrossRef]
11. Yaroslav Kuzminov: Online Courses Will Improve the Quality of Distance Education. TASS of 16 October 2019. Available online: https://tass.ru/interviews/5678333 (accessed on 20 March 2021).
12. Noble, D. Digital diploma mills: The automation of higher education. *First Monday* **1998**, *3*. [CrossRef]
13. Walther, J.; Anderson, J.; Park, D. Interpersonal effects in computer-mediated interaction: A meta-analysis of social and antisocial communication. *Comm. Res.* **1994**, *4*, 460–487. [CrossRef]
14. Vadim Volkov: Possibilities of the Web: What Changes Await Universities after the Pandemic. RBC, 22 April 2020. Available online: www.rbc.ru/opinions/society/22/04/2020/5e9eaabf9a794752fa732ae9 (accessed on 20 March 2021).
15. Morley, L. *Quality and Power in Higher Education*; Open University: Buckingham, UK, 2003.
16. Alpin, C.; Shackleton, J.R. Labor market trends and information needs: Their impact on personnel policies. *Europ. J. Voc. Train.* **1997**, *12*, 7–13. [CrossRef]
17. Stefanova, N.A.; Ahunova, Z.R. The employer's view on "on-line specialist" or the quality of distance learning. *KNZH* **2017**, *4*, 103.

18. Morley, L.; Aynsley, S. Employers, quality and standards in higher education: Shared values and vocabularies or elitism and inequalities? *High. Ed. Q.* **2007**, *61*, 229–249. [CrossRef]

19. Ng, T.W.; Eby, L.T.; Sorensen, K.L.; Feldman, D.C. Predictors of objective and subjective career success: A meta-analysis. *Pers. Psychol.* **2005**, *58*, 367–408. [CrossRef]

20. Roberto, K.J.; Johnson, A.F. Employer perceptions of online versus face-to-face degree programs. *J. Empl. Couns.* **2019**, *56*, 180–189. [CrossRef]

21. Bryant, S.M.; Kahle, J.B.; Schafer, B.A. Distance education: A review of the contemporary literature. *Iss. Acc. Ed.* **2005**, *20*, 255–272. [CrossRef]

22. Mozhaeva, G.V. Online-Courses in Basic and Additional Professional Education: Integration Models. Available online: \protect\unhbox\voidb@x\hbox{https://elearning.hse.ru/data/2017/04/14/1168187648/%D0%93.%D0%92.%20%D0%9C%D0%BE%D0%B6%D0%B0%D0%B5%}D0%B2%D0%B0.pdf (accessed on 20 April 2021).

23. Korneev, A.N.; Kotelnikova, V.E. Trends in distance learning: Methods and technologies. *Eur. Sci. J.* **2017**, *6*, 12.

24. Federal Law "On Education in the Russian Federation" of December 29, 2012, No. 273-FZ. Available online: http://www.kremlin.ru/acts/bank/36698 (accessed on 20 April 2021).

25. Decree of the President of the Russian Federation of 26 October 2020 No. 645 "On the Strategies of Development of the Arctic zone of the Russian Federation and Ensuring National Security for the Period up to 2035". Available online: http://www.kremlin.ru/acts/bank/45972 (accessed on 20 April 2021).

26. Zaikov, K.S.; Kondratov, N.A.; Kudryashova, E.V.; Tamitskii, A.M. The need for workforce in constituent entities of the Arctic zone of the Russian Federation. *Econ. Soc. Chang. Facts Trends Forecast* **2018**, *11*, 184–201. [CrossRef]

27. Zaikov, K.S.; Katorin, I.V.; Tamitskii, A.M. Migration attitudes of the students enrolled in Arctic-focused higher education programs. *Econ. Soc. Chang. Facts Trends Forecast* **2018**, *11*, 230–247. [CrossRef]

28. Miller, E.D. Fierce debates about online education in the age of COVID-19. *Natl. Teach. Learn. Forum* **2020**, *30*, 1–3. [CrossRef]

29. Bao, W. COVID-19 and online teaching in higher education: A case study of Peking University. *Hum. Behav. Emerg. Tech.* **2020**, *2*, 113–115. [CrossRef] [PubMed]