

MULTIDIMENSIONALITY OF REMOTE WORK FROM THE PERSPECTIVE OF GENERATION Z

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Purpose: The aim of the study is to present research results regarding the opinions of Generation Z representatives regarding the working hours of remote work. The characteristics of the generation predispose its representatives to this form of work, they seem almost perfectly suited to its requirements and the benefits it brings.

Design/methodology/approach: In the analysis of the material obtained as a result of the research, cluster analysis was used, and the Kendal tau, R-Spearman and Gamma correlation indices were used to assess the relationship between the defined working hours of remote work.

Findings: The conducted cluster analysis draws attention to eight areas determining the opinions of Generation Z employees regarding remote work, including: intra-organizational communication, employee relations, technical aspects of communication, organizational learning, availability of knowledge, operational efficiency, well-being/convenience and work comfort. The analysis of correlation indicators indicates that representatives of the studied age group attach great importance to the social aspects of work, appreciating the importance of employee relations. They also note that the social work environment plays a large role in the processes of organizational learning and, consequently, in improving one's own operational efficiency. The dominant majority of respondents would prefer to work on a stationary basis or hybrid form in the future.

Research limitations/implications: In order to dwell upon the underlying causes of this situation, it should be recommended to proceed with further in-depth qualitative research.

Originality/value: The paper reveals new aspects that play crucial role in shaping Generation Z attitude to online work.

Keywords: remote work, Generation Z, organizational learning.

Category of the paper: Research paper.

1. Introduction

There is still a discussion in the literature on the subject regarding the validity and correctness of grouping employees according to age categories and the definition of the term generation itself (Urick et al., 2017), hence various authors, in relation to the analyzed issues, cite various classifications of generational divisions (Bencsik et al., 2016; Goh, Lee, 2018;

Kirchmayer, Fratricova, 2018). The most popular division assumes that Generation Z includes people born after 1995, although researchers sometimes include among its representatives those born in 1990, and in other approaches only those who were born in 2000 and later (Dreyer, Stojanová, 2022).

What is characteristic of Z is a strong attachment to, or even dependence on, modern information technologies and the tools used to support them. The devices used by Generation Z are smartphones and iPhones. For representatives of this generation, these are basic communication tools dominating the form of direct communication (Zeer et al., 2021). Through them, young employees build relationships, learn, acquire knowledge and share it. It should be noted that for representatives of Generation Z, knowledge is sometimes identified with the category of information (Szymkowiak et al., 2021). What distinguishes these generations from the previous generations is the perception of knowledge and information themselves - they are not competitive goods for Z (Albrychiewicz Słocińska, 2022). The research results also draw attention to the fact that there may be problems related to the exchange of knowledge understood as learning and teaching others (Sekala et al., 2023). There are clear gaps in competences in naming and expressing knowledge, which is hidden knowledge and often not realized by the employee himself, i.e. deficiencies in social and communication skills (Hegade, Shettar, 2022; Steyn et al., 2020). This is somehow contrary to their attitude towards early acquisition of professional experience, involvement in various types of activities, including volunteering, and the belief in the need to build social capital, i.e. a network of contacts (Sidor-Rządkowska, 2021, p. 31).

Questions arise: how do representatives of this youngest generation on the labor market cope with remote work? How do they rate it? What aspects are most important to them? Massive transitions to the remote work system triggered by the COVID-19 pandemic resulted in the popularization of this form of work. For many young people, it seems to be a form of work that is so desirable that they are willing to accept lower salaries (Emanuel, Harrington, 2023b).

The aim of the study is to present research results regarding the opinions of Generation Z representatives regarding the working hours of remote work based on the conducted cluster analysis.

2. Theoretical basics

Literature studies on remote work indicate that there is great terminological diversity in relation to this issue. For the purposes of this study, the author narrows the understanding of the concept of remote work, identifying it with work performed outside the workplace, usually at home, using Internet connection to company servers. It should be noted, however, that in Poland, in the light of the applicable legal bases, until recently there was a distinction between

the terms telework and remote work (Krzyżanowska, 2020). This distinction disappeared in 2023. The main element characterizing remote work in the light of legal provisions (Journal of Laws of 2023, item 240), the introduction of which was forced by the pandemic, is the "workplace". It may be any place indicated by the employee (including the employee's place of residence), provided that it is always agreed with the employer. The basic advantages of this form of work include an increase in the flexibility of the organization, a reduction in the costs associated with maintaining the company and a decrease in employee absenteeism, meeting the work needs of older workers, disabled workers, living in agricultural areas or away from industrial centers, as well as employees caring for children or other dependent persons. Charalampous (2020) also points to the importance of remote work in shaping employee well-being. In turn, the main disadvantages of remote work are the fact that remote work makes it difficult for managers to supervise the team's work (Wąsik, 2020), complicates the issues of occupational health and safety regulation in the company, makes it difficult to properly secure data and worsens internal communication in the company (Wąsik, 2020). It is also noted that remote work causes a decrease in commitment and trust among employees (Tomaszuk, Wasiluk, 2023), deterioration of work quality and a sense of isolation (Bartel et al., 2012). It is similar with the difficult assessment of employee effectiveness and productivity when working remotely (Tsang et al., 2023b). Remote work also makes it difficult to assess employee effectiveness and productivity (Morikawa, 2023). It seems that the discrepancies in the assessment of remote work are conditioned by the specific operation of the industry and the company itself, although 2020 and 2021 have proven that even work traditionally based on direct contact with the recipient of the service (e.g. education, medical advice) could in this crisis time go into the virtual world. Also, the fact that remote work was for a long time treated as a premium benefit, available only to a few, the best, most effective employees, did not allow revealing the disadvantages of mass provision of work in this form (Bamieh, Ziegler, 2022).

3. Methodology

The research results presented in the study are part of a quantitative survey on "Managerial aspects of remote work management", carried out among young people working remotely, representing Generation Z. The research was carried out in December 2022. The study was conducted using quantitative research methods using the survey technique. The study covered young people from Generation Z whose experience of remote work spanned at least 2022. Due to the fact that there is no statistical data on the number of people from Generation Z working remotely in Poland, at the moment of the study, it was assumed that the respondents would be young professionally active people in accordance with the age categories adopted by the Statistical Yearbook of Labor 2021. The size of the population was determined. working in

Poland in the age group of 15-34 years of interest to researchers, out of 4,802 thousand. people. For the population estimated in this way, with the following statistical assumptions: fraction size: 0.5; confidence level: 95%; maximum error: 5%, the size of the research sample was set at 384 people. Ultimately, 387 correctly completed questionnaires were obtained (excessive questionnaires do not disturb the planned structure of the research group).

The study was carried out using quantitative research methods, using the CATI (Computer Assisted Telephone Interview - 50% of respondents) and the CAWI (Computer-Assisted Web Interview - 50% of respondents).

The assumption regarding the selection of respondents from the group with experience of remote work at least in 2022 was related to the elimination of the group of employees whose work was organized remotely only due to the COVID-19 epidemic. These employees most often undertook their duties and tasks in a manner significantly different from the remote working conditions defined in the literature (Tsang et al., 2023a), the first, basic of which assumes the voluntary choice of this form of work (Astorquiza -Bustos, Quintero-Peña, 2023; Bamieh, Ziegler, 2022).

The STATISTICA program was used in the process of developing research results. Cluster analysis was used for variable segmentation. This method, also called feature and object segmentation, is an example of an analysis that involves searching for and extracting clusters from data, i.e. groups of similar objects. The study used the nonoverlapping method, using a hierarchical data grouping algorithm (agglomerative method). It involves assigning each object to one group/cluster.

4. Research results

As a result of the cluster analysis procedure, using the Ward Method as an agglomeration method and percentage discrepancy as a distance measure (Combining distance = 0.84253), the eight division of variables into clusters was obtained based on the dendrogram (Figure 1).

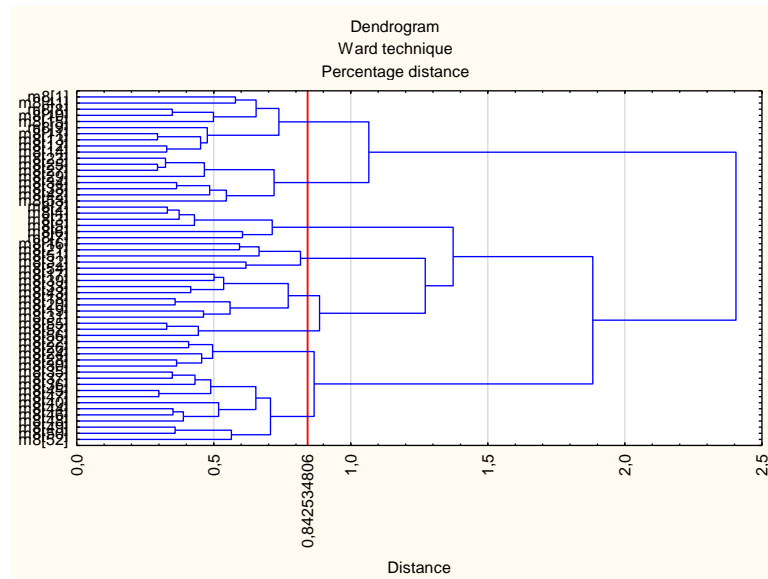


Figure 1. Dendrogram grouping variables.

Source: results of own research.

By conducting a substantive analysis of the variables grouped within individual clusters, the following areas of remote work were defined:

1. *work comfort* - similarities between the variables were observed in relation to respondents' answers confirming that remote work gives greater freedom/independence at work, promotes stress-free work and makes the employee feel comfortable;
2. *availability of knowledge* - this cluster combines the issues of the possibility of assessing the truthfulness of information, efficient learning of new things, collecting and documenting employee knowledge, locating people with the necessary knowledge and transferring knowledge by the superior;
3. *efficiency of operation* - this group of variables showed a moderately positive relationship between the impact of remote work on the issues of fair evaluation of employees, recognition of employees' efforts to understand the meaning of the tasks performed, faster implementation of tasks, work without direct supervision, efficient settlement of the performance of assigned tasks, independent allocation of tasks by team members, understanding the instructions/tasks given, organizing tasks, reconciling work with private life and setting boundaries between these areas and flexible time management;
4. *intra-organizational communication* - in this area, respondents emphasized the importance of written communication, emphasis on communicating in connection with the implementation of tasks, communicating with colleagues mainly via company platforms and applications, but also via social media, the role of the manager as a central communication point (most information goes through the manager) and promoting the use of feedback communication;

5. *organizational learning* - this cluster combines variables to which respondents, on average, responded moderately negatively, regarding learning from colleagues, the ability to better explain new knowledge to other employees, learning from older colleagues, encouraging the search for information/knowledge among employees, effective motivation employees by the manager, mutual motivation of employees, faster introduction to a new job and support of employees by the superior;
6. *employee relations* - this group of variables referred to a negative or moderately negative assessment of the impact on work efficiency, conducting training, team integration and finding one's place in it, communication efficiency between employees, building emotional bonds between them, establishing relationships with the superior and co-workers, building trust in relationships and shaping the feeling of being part of the organization;
7. *technical aspects of communication* - this cluster includes variables that raise the problem of the need to learn new technical solutions, solve problems independently, quickly exchange information, understand the information provided, maintain constant readiness for work and self-motivation, good organization of one's own work and the effectiveness of performed tasks. on the efficiency of hardware and software;
8. *employee's well-being/comfort* - this area included respondents' opinions on the occurrence of conflict situations, information overload, the occurrence of various types of distractions, disruption of the daily and nightly rhythm and the feeling of isolation.

5. Discussion

The multidimensional analysis carried out using the cluster method led to the identification of areas that illuminate the dimensions of remote work, within which employees adopt certain characteristic attitudes. In the process of creating a survey tool for research purposes, the authors initially divided the questions into certain groups that were to facilitate the analysis of research material in the future, including: employee relations, knowledge/information/learning, motivation, work organization and work-life balance. Cluster analysis revealed different connections between individual variables than the researchers initially assumed, creating new conglomerates representing different contents. It is interesting that the respondents view the issues of work-life balance in such a diverse way that they are included in four different clusters, thus providing an additional perspective for the interpretation of individual clusters. The group that comes closest to the assumptions of variable groups made by researchers is the group concerning employee relations.

An element that brings additional interpretive value to the results of the conducted analyzes is Kendall's tau correlation coefficient (an indicator recommended for examining the relationships between variables expressed on a Likert scale, the value is between -1 and 1 (Błażejczyk-Majka, 2018)), which shows numerous connections between clusters, even with a raised p (for $p < .001$) provides insight into strong relationships only between selected clusters. Thus, the area of organizational learning is strongly related to employee relations (index value 0.6796); knowledge availability strongly correlates with employee relations (0.5427), technical aspects of communication (0.5393) and organizational learning (0.5701); operational efficiency correlates with technical aspects of communication (0.6128) and knowledge availability (0.5943); and work comfort correlates with operational efficiency (0.5106). An exception is the area of employee well-being/comfort, which does not correlate with any of the observed clusters.

The areas of employee relations, organizational learning and operational efficiency have the strongest influence on the preferred form of work in the future (as confirmed by the applied correlation indices of Kendall's tau, Spearman's R and Gamma).

These regularities are confirmed in the literature on the subject. As indicated by Kucharczyk's (2023) online publication presenting a text translated from "The Economist" (2023), many publications, especially those created during the pandemic and earlier, raised the advantages of remote work. To justify these results, the publication by Emanuel and Harrington (2020) was cited, emphasizing increased productivity and efficiency among employees working remotely. Despite the fact that the same authors in their subsequent publications, based on more accurate and detailed data (Emanuel, Harrington, 2023b, 2023a), revised their views, pointing to opposite conclusions, which was also confirmed by other studies (Atkin et al., 2023; Gibbs et al., 2022), the myth about the superiority of remote work over stationary work continued. The cited studies emphasize, among other things, that remote communication is not conducive to solving everyday matters at work, and teleconferences are only an imitation of office meetings. In remote work, the coordination of many processes takes longer, becomes more complicated, formalized and therefore less effective. Remote work is also associated with stagnation in development, both professional and social (Yarbrough, Ramos Salazar, 2023). As Emanuel et al. (2023) points out, people working in offices acquire the skills needed in a new job faster, which confirms the relationship between organizational learning and employee relations detected in the study as presented in the study.

6. Summary

The presented research results and their analysis lead to several conclusions. Firstly, despite the numerous advantages of remote work, with particular emphasis on the employee's ability to build work-home relationships, as many as 43% of respondents prefer stationary work. Taking into account the characteristics of Generation Z, supporters of modern technologies for whom electronic media are everyday life, this is a surprising conclusion. Preferences in the field of stationary work are primarily the result of Z's appreciation of the role of employee relations in the workplace, their impact on professional development opportunities through organizational learning and, consequently, improving the employee's efficiency. Clearly, the social work environment plays a significant role in shaping employee performance, and employees are taking notice. Aspects of work-life balance in relation to remote work are analyzed rather from the perspective of convenience, easier time organization, in other words, work comfort. However, this is an individual element and there are no connections with other dimensions of remote work. Perhaps the answer to this question is the fact that the respondents were Generation Z employees who were not yet fully burdened with family responsibilities. The study conducted is obviously characterized by certain limitations. Narrowing it down to a specific generation (age group) does not provide insight into whether employees from higher age groups evaluate the dimensions of remote work in the same way. Similarly, the lack of representativeness in the study in relation to industries that traditionally offer employees more opportunities to work remotely may distort the results. It would undoubtedly also be interesting to conduct similar research focusing on large or medium-sized organizations that approach the organization of remote work in a professional manner - then perhaps additional regularities would be detected.

References

1. Albrychiewicz-Słocińska, A. (2022). Remote work and Knowledge Exchange Strategies in the Opinions of Generation Z. *European Conference on Knowledge Management*, 23(1). Retrieved from: <https://www.proceedings.com/content/066/066013webtoc.pdf>, 3.06.2024.
2. Astorquiza-Bustos, B.A., Quintero-Peña, J.W. (2023). Who can work from home? A remote working index for an emerging economy. *Telecommunications Policy*, Vol 47(10), Retrieved from: <https://doi.org/10.1016/j.telpol.2023.102669>, 3.06.2024.
3. Atkin, D., Schoar, A., Shinde, S. (2023). *Working from Home, Worker Sorting and Development* (Working Paper 31515). National Bureau of Economic Research. Retrieved from: <https://doi.org/10.3386/w31515>, 3.06.2024.

4. Bamieh, O., Ziegler, L. (2022). Are remote work options the new standard? Evidence from vacancy postings during the COVID-19 crisis. *Labour Economics*, Vol. 76, Retrieved from: <https://doi.org/10.1016/j.labeco.2022.102179>, 3.06.2024.
5. Bartel, C. A., Wrzesniewski, A., Wiesenfeld, B. M. (2012). Knowing where you stand: Physical isolation, perceived respect, and organizational identification among virtual employees. *Organization Science*, Vol. 23(3), Retrieved from: pp. 743-757, <https://doi.org/10.1287/orsc.1110.0661>, 3.06.2024.
6. Bencsik, A., Horváth-Csikós, G., Juhász, T., (2016). Y and Z Generations at Workplaces, *Journal of Competitiveness*, Vol. 8(3), pp. 90-106, Retrieved from: DOI: 10.7441/joc.2016.03.06.
7. Błażejczak-Majka, L. (2018). *Zastosowanie analizy skupień w przypadku zmiennych wyrażonych na skali porządkowej*, BazaWiedzaSukces.pl, StatSoftPolska. Retrieved from: <https://www.bing.com/ck/a?!&&p=2d282e3800e2ccfcJmltdHM9MTcwNjQ4NjQwMCZpZ3VpZD0yYzNjNjFhOS05NGM0LTZiZWUtMzVhOS03M2NIOTViYzZhMmEmaW5zaWQ9NTIxMg&ptn=3&ver=2&hsh=3&fclid=2c3c61a9-94c4-6bee-35a9-73ce95bc6a2a&psq=Zastosowanie+analizy+skupie%c5%84+w+przypadku+zmiennych+w+yrazonych+na+skali&u=a1aHR0cHM6Ly93d3cuc3RhdHNvZnQucGwvd3AtY29udGVudC91cGxvYWRzLzIwMTgvMTEvc2VtX25hdWtfemFzdG9zb3dhbmlIX2FuYWxpenlfc2t1cGllbi5wZGY&ntb=1>, 7.02.2024.
8. Charalampous, M. (2020). A review of the agile working literature in relation to five facets of well-being. *Agile Working and Well-Being in the Digital Age*, pp. 93-105. Retrieved from: https://doi.org/10.1007/978-3-030-60283-3_7.
9. Dreyer, C., Stojanová, H. (2022). How entrepreneurial is German Generation Z vs. Generation Y? *A Literature Review*. Vol. 217, pp. 155-164. Retrieved from: <https://doi.org/10.1016/j.procs.2022.12.211>.
10. Emanuel, N., Harrington, E. (2020). The Payoffs Of Higher Pay: Elasticities Of Productivity And Labor Supply With Respect To Wages. *Job Market Paper*. Retrieved from: https://scholar.harvard.edu/files/nataliaemanuel/files/emanuel_jmp.pdf, 7.02.2024.
11. Emanuel, N., Harrington, E. (2023a). Is Work-from-Home Working? *SSRN Scholarly Paper*, Vol. 4486370. Retrieved from: <https://papers.ssrn.com/abstract=4486370>, 7.02.2024.
12. Emanuel, N., Harrington, E. (2023b). Working Remotely? Selection, Treatment, and the Market for Remote Work. *SSRN Scholarly Paper*, Vol. 4466130. Retrieved from: <https://doi.org/10.2139/ssrn.4466130>, 7.02.2024.
13. Emanuel, N., Harrington, E., Pallais, A. (2023). The Power of Proximity to Coworkers: Training for Tomorrow or Productivity Today? *National Bureau of Economic Research, Working Paper Series*, Vol. 31880, DOI 10.3386/w31880.

14. Gibbs, M., Mengel, F., Siemroth, C. (2022). Work from Home and Productivity: Evidence from Personnel and Analytics Data on Information Technology Professionals. *SSRN Scholarly Paper*, Vol. 3841457. Retrieved from: <https://doi.org/10.2139/ssrn.3841457>
15. Goh, E., Lee, C. (2018), A workforce to be reckoned with: The emerging pivotal Generation Z hospitality workforce. *International Journal Of Hospitality Management*, Vol. 73, pp. 20-28, DOI: 10.1016/j.ijhm.2018.01.016..
16. Hegade, P., Shettar, A. (2022). Elevate-Z: A Model to Create Learning Spaces for Generation Z Students. *Journal of Engineering Education Transformations*, Vol. 35 (Special Issue 1), pp. 175-180.
17. Journal of Laws: Ustawa z 1 grudnia 2022 r. o zmianie ustawy – Kodeks pracy oraz niektórych innych ustaw (Dz.U. z 2023 r., poz. 240).
18. Kirchmayer, Z., Fratricova, J. (2018). What Motivates Generation Z at Work? Insights into Motivation Drivers of Business Students in Slovakia. *Innovation Management And Education Excellence Through Vision 2020, VOLS I-XI*, pp. 6019-6030.
19. Krzyżanowska, M. (2020). Z daleka od firmy. In: *HR praca zdalna. HR Personel&Zarządzanie*, E-book, Vol. 2.
20. Kucharczyk, M. (2023). The Economist: Upadł wielki mit dotyczący pracy zdalnej. Iluzja nie trwała długo. Retrieved from: https://wydarzenia.interia.pl/raport-media-zagraniczne/news-the-economist-upadl-wielki-mit-dotyczacy-pracy-zdalnej-iluzj,nId,6955266#parametr=temat_wiecej#utm_source=paste&utm_medium=paste&utm_campaign=chrome, 7.02.2024.
21. Morikawa, M. (2023). Productivity dynamics of remote work during the COVID-19 pandemic. *Industrial Relations*, Vol. 62(3), pp. 317-331.
22. Sekala, A., Schultz, O., Foit, K., Blaszczyk, T. (2023). *Technical Education for Industry 4.0: Generation Z's motivation to study technical subjects - a comparative study of selected universities in Denmark and Poland*. EAEEIE 2023 - Proceedings of the 2023 32nd Annual Conference of the European Association for Education in Electrical and Information Engineering. Retrieved from: <https://doi.org/10.23919/EAEEIE55804.2023.10181671>.
23. Sidor-Rządkowska, M. (2021). *Kształtowanie przestrzeni pracy. Praca w biurze, praca zdalna, coworking*. Warszawa: Wolters Kluwer.
24. Steyn, A.A., de Villiers, C., Jordaan, J., Pitso, T. (2020). Connecting Generation Z information systems students to technology through the task-technology fit theory. *Communications in Computer and Information Science*, Vol. 1136 CCIS, pp. 197-210, Retrieved from: https://doi.org/10.1007/978-3-030-35629-3_13.
25. Szymkowiak, A., Melović, B., Dabić, M., Jeganathan, K., Kundi, G.S. (2021). Information technology and Gen Z: The role of teachers, the internet, and technology in the education of young people. *Technology in Society*, Vol. 65. Retrieved from: <https://doi.org/10.1016/j.techsoc.2021.101565>.

26. Tomaszuk, A., Wasiluk, A. (2023). Pokolenie Z – perspektywa zaufania do przełożonych i współpracowników. *Przegląd Organizacji*, Vol. 2, pp. 83-93. Retrieved from: <https://doi.org/10.33141/po.2023.2.9>.
27. Tsang, S.-S., Liu, Z.L., Nguyen, T.V.T. (2023a). Work-from-home intention during the COVID-19 pandemic: A perspective integrating inclusive leadership and protection motivation theory. *International Journal of Manpower*. Retrieved from: <https://doi.org/10.1108/IJM-11-2022-0541>.
28. Tsang, S.-S., Liu, Z.-L., Nguyen, T.V.T. (2023b). Family–work conflict and work-from-home productivity: Do work engagement and self-efficacy mediate? *Humanities and Social Sciences Communications*, Vol. 10(1). Retrieved from: <https://doi.org/10.1057/s41599-023-01929-y>.
29. Urick, M.J., Hollensbe, E.C., Fairhurst, G.T. (2017). Differences in Understanding Generation in the Workforce. *Journal of Intergenerational Relationships*, Vol. 15(3), pp. 221-240, Retrieved from: <https://doi.org/10.1080/15350770.2017.1329583>.
30. Wąsik, A. (2020b). *Zasady pracy zdalnej*. In: *HR praca zdalna*. HR Personel & Zarządzanie, E-book, no. 2.
31. Yarbrough, J.W., Ramos Salazar, L. (2023). Virtual onboarding and socialization, an exploration of employee discussions and experiences. *Corporate Communications*, Vol. 28(5), pp. 707-723. Retrieved from: <https://doi.org/10.1108/CCIJ-12-2022-0158>.
32. Zeer, E.F., Tserkovnikova, N.G., Tretyakova, V.S. (2021). Digital Generation in the Context of Predicting the Professional Future. *Obrazowanie i Nauka*, Vol. 23(6), pp. 153-184. Retrieved from: <https://doi.org/10.17853/1994-5639-2021-6-153-184>.