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## **Features of the Organization of Distance Learning in the Process of Training Specialists in Administration and Public Administration (Polish Experience)**

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**Abstract:** The article reflects the peculiarities of distance learning organization in the process of training specialists in administration and public administration on the example of the Polish experience. The methods of providing distance education, the challenges faced by specialists in higher education, and the advantages of such training of managers are considered. The presented article contains a review of the literature concerning distance learning in administration and public administration published in the last five years. According to the results of the processing of 45 articles presented in scientometric databases (Scopus, Web of Science, Index Copernicus), the trend of comparative analysis of distance and traditional educational models is typical. Research studies mainly focus on specific technologies and the degree of their effectiveness, the number of publications with the study of competencies has been growing only in the last two years. In addition, the predominant method is the analysis of quantitative data on students' academic performance and the adoption of the latest technologies by educators. Accordingly, the novelty of the study lies in highlighting the limitations of the discourse in the problem field: the focus on WEIRD sampling (respondents from Western, educated, industrialized, wealthy, and democratic societies), the lack of a meaningful conceptual framework for competency and self-efficacy research, the lack of qualitative data specific to a particular industry. Therefore, the purpose of the

presented work is to determine the elements necessary for the professional development of future managers in a distance learning environment and the degree of their implementation. In the course of the empirical study, the subjective perception of the quality of education in the conditions of distance learning and the compliance of qualifications obtained by students with the requirements of the professional environment in the field of management were analyzed. The research methodology is embodied by exploratory design, which is based on surveys of participants in the educational process and semi-structured interviews of specialists in the field of public administration. The results allowed drawing conclusions about the sufficient level of skills in the digital environment and the sense of satisfaction with the educational process among students and teachers. The main indicator of academic achievement was determined by the content of the curricula, which corresponded to the current trends of professional activity. In addition, in the distance mode, one of the important components of learning efficiency is the interpersonal contact between the teacher and the student, guaranteeing the experience of the content and quality of the educational process.

**Keywords:** distance education, higher education, PA programs, Central and Eastern Europe, CEE, Poland.

## Introduction

The field of management, namely the public administration (PA), is an agent of change in modern society because reforms are primarily conditioned by the efficiency of managers' professional activity. Accordingly, the issue of qualitative training of specialists is particularly acute in the period of large-scale transformations. A particular attention should be paid to the issues of professional competence in the realities of diversification of the educational sector. For example, the Republic of Poland has developed a number of distance learning programs for public administration and management. It should meet the increasing demand for qualified personnel in this area and maintain the effectiveness of the educational process during quarantine restrictions. However, the issue of the quality of these programs remains relevant. Distance management training is characterized by significant features that reflect the overall context of future professional activity: technology-oriented, science-based, cooperative, autonomous, working with limits, and limited resources. The above-mentioned training conditions contribute to important meta-competencies mastering and giving experience in making micro- and macro-level managerial decisions. One of the key features is the training in the context of the transformation of the educational paradigm. Since managerial activity is primarily aimed at meaningful change, training under the supervision of educators, who are executors and initiators of restructuring the educational process, will allow the student to obtain the necessary knowledge and skills as an agent of change (Krukowski et al., 2021). It is noteworthy that the harmonious formation of a specialist is possible only with the effective implementation of pedagogical principles in the modern context. Consequently, it is necessary to justify effective learning interaction in the era of distance education taking into account the peculiarities of professional activity in the sphere of management.

## Research Problem

The COVID-19 pandemic and the Russian-Ukrainian war emphasized the importance of effective distance learning in the training of specialists in administration and public administration in Poland. However, the technological maturity of higher education institutions in Poland and the quality of curricula in this field are insufficiently reflected in concerned studies, especially in the context of the historical heritage of Central and Eastern Europe (CEE) – mainly the specifics of the educational process

of leading European Union countries are covered. Explorations on Eastern Europe have become a trend of the last year and are descriptive in nature (Maleńczyk & Gładysz, 2019). The historical heritage of this region largely determines the educational trends in this area. In Poland, particularly, during the communist period, education served as a tool for the development of a socialist society, which was reflected in the ideological bias and low level of competence of graduates. To this day, the training of civil servants is a key mechanism for the Europeanization of the country and the development of the professional community (Donina & Jaworska, 2022). The role of education in the context of state development has been the topic of numerous academic debates. One of the main challenges facing CEE countries is the need to develop the potential of their people through education and training (Pevcin et al., 2019). The need for a rapid transition to an informational educational model has contributed to the reevaluation of information and communication technology (ICT) in RA training. Higher education institutions (HEIs) in Poland have had to rapidly adapt to the digitalization of their programs. The presented studies on the functionality of higher education are justified by the overriding role of universities and research institutes as guarantors of sustainable development. In addition, they outline the standards of the society of the future, relaying them through future managers. Available publications highlight the level of virtualization of educational institutions and the development of their digital infrastructure (Kucharska & Rostek, 2023). In general, the studies assess the Polish standard of training specialists as corresponding to the European one. At the same time, there is insufficient information about the viability of programs given the continued digitalization (Rudenko et al., 2019). Despite progress in program development and the integration of technology into the educational process, there is still a need for research on the feasibility of certain methods in the context of managerial training (Greenwood & Kudrycka, 2018).

### ***Research Focus***

Based on the results of the literature review, it is noted that the context of transformations of the educational program of public administration includes the following main components: the challenges of modern professional activity of managers and consistency of competencies of higher education graduates; the compliance with the technical and psychosocial resources of educational institutions of distance learning mode. Now Poland has shifted from the position of the recipient of changes and has acquired subjectivity in the innovation process. Therefore, the sphere of public administration is actively involved in the justification of strategic functions, implementation, and reflection (Hoffman, 2021). In addition, the digitalization of management actualizes the problem of data security control, which changes the context of specialists' activities. Untimely and incomplete adaptation of managers to the new requirements, in particular document management, risk control, auditing, and professional training, is characteristic (Szczepaniuk et al., 2020). Accordingly, it is advisable to study risk control, digital competencies, and their integration into distance learning programs, which will guarantee the relevance of the professional competence of the graduate. Digitalization has also significantly changed the training process itself, as distance learning has not only provided the opportunity to maintain functionality, but also created a new educational space. Participants in the learning process, like professionals in the industry under study, have to master ICT in a short period of time, and didactic principles are still not fully integrated in the new mode of operation (Ernst-Milerska, 2020). The problem of quality assurance of educational programs is a major obstacle to the development of distance learning (Marcin, 2019). One aims to illuminate the degree of consistency between the opportunities offered by innovative technologies in the distance mode and the current state of e-learning for managers in Poland, considering the ultimate goal of the training process.

## ***Research Aim and Research Questions***

Referring to the data obtained in the course of the literature review, it can be argued that determining the components of successful mastery of the management profession is an achievable task. For this purpose, one can rely on the criteria actualized in previous works: communication, resourcefulness, motivation (Krukowski et al., 2021); infrastructure, networking, scientific support (Jakimowicz & Rzekowski, 2021); digitalization, global communication, self-learning, motivation, transparency guarantees (Dobrowolski et al., 2022); systemicity, quality, public contextualization (Gabryelczyk, 2020). Although intelligence covers a significant number of different aspects of the field under study, some of them may not correspond to the socio-cultural context of the Polish educational process or the professional environment of managers. The task of this study is to identify those elements that play an essential role in the process of professional development of future managers in a distance learning environment and the degree of their implementation. One can distinguish the following research questions:

1. RQ1 What tools are needed in a remote management training environment?

2. RQ2 To what extent are participants in the educational process adapted to the digital learning environment?

3. RQ3 Does the current management training strategy meet the requirements of the professional environment?

4. RQ4 What are the key competencies for future professionals and require increased attention in a distance learning environment?

## ***Research Methodology***

### ***General Background***

In the study an exploratory approach in order to identify the key features of the organization of distance learning in administration and public administration in Poland was used. Both, qualitative and quantitative data, which allowed drawing conclusions regarding the substantive and relative aspects of the issue under study, were collected. The empirical research phase included two main approaches: a survey of participants in the educational process and semi-structured interviews with specialists in the field of administration. Formed questionnaires were distributed among students and teachers in the field of administration and public administration in educational institutions in Poland participating in distance learning programs. Semi-structured interviews were conducted with a group of managers for an in-depth analysis of the characteristics of the professional environment. Research participants were informed about the purposes of the study, they were given the right to refuse the interview at any stage, and the data were presented in anonymous form with a guarantee of confidentiality. The publication does not provide affiliations of the participants at the request of the teaching staff of educational institutions. In addition, consent to the processing of the collected data was obtained from each of the participants involved in the work. It should be noted that the presented results are significantly limited by the chosen methodology: subjective evaluation methods illuminate the peculiarities of students' and teachers' experience of Polish institutions, as well as of managers, and do not allow extrapolating the data obtained to another sociocultural context. In addition, the used methods of mathematical and statistical analysis impose limitations on the generalization of the findings. However, the findings are consistent with international standards, particularly NASPAA and EAPAA (Pevcin et al., 2019). This

strategy is due to the desire to separate the process of training of managers from the information field of management as an independent activity and to consider the studied object as an independent one in a certain sociocultural context. Thus, one seeks to bring the educational programs implemented in a distance form to the context of professional activities of managers, without losing the methodological basis of pedagogical activity. Summarizing, in this work we aim to focus on general and specific competencies and methods implemented in the training process, not only evaluating, but also actualizing them.

### ***Sample / Participants / Group***

The stratometric approach was used in order to select respondents, and then three research groups were formed. The groups consisted of professors, students, and public administration specialists. Teachers were selected on the basis of their experience in teaching distance courses in administration and public administration among employees of universities and educational institutions in Poland that offer such courses. The students involved in the study were enrolled in appropriate educational programs. Respondents from the public administration sector were recruited based on their availability and willingness to participate in the study presented. These individuals had more than 3 years of experience in public administration in Poland. A total of 319 people participated in the study, including 84 faculty members, 205 students, and 30 public administration professionals. Among the teachers, 64.3% identified themselves as women and 35.7% as men. The age range was 29 to 56 with an average age of 45. The majority of the faculty had a master's degree (84.5%) and the remaining 15.5% had a doctoral degree. Students in the sample were predominantly female (80%), 18 to 35 years old with an average age of 24.3 years. The ratio of undergraduate and graduate students is 76.6% and 23.4%, respectively. Public administration professionals in the sample are predominantly male (70%), with an average age of 49 (age range 32 to 64). All specialists had at least a bachelor's degree, 26.7% had a master's degree, and 10% had a doctorate.

### ***Instrument and Procedures***

By analyzing the current publications in this area, one identified characteristic trends. In addition, the basic framework of the application of the separated criteria in the coverage of the problem under study was determined. The research trends and samples of measurement tools are presented in the table of learning interaction. The table below summarizes the data presented in the processed articles, has overview content, and is intended to develop a theoretical and methodological basis for further research projects. The examples of diagnostic techniques provided serve as illustrative material. During the analysis of the research apparatus, the characteristic correspondence of the criteria highlighted by us to the aspects presented in Catalano (2018) was determined. Calls to works that allow evaluating the procedural characteristics of approaches to data collection are given. Complementing the data presented in the table, we note that often the methodology is not covered in the final publications. In addition, the tendency to use author's questionnaires and questionnaires without prior validation and assessment of psychometric qualities is characteristic. A contemporary trend is to turn to Likert's model, self-reports, and conceptual frameworks without prior validation, such as DigCompEdu and Eurostat (Kriksciuniene et al., 2019). Such studies provide an opportunity to assess the current state of distance learning and highlight meaningful aspects, but the issue of the consistency of data from different publications remains open. Moreover, in the absence of a unified methodology, discrete publications are presented to reinforce the realities of the reproducibility crisis. Often research works in this, and related fields have a descriptive orientation. Obviously, this approach to the development of methodology is due to the focus and concretization of research tasks, the embodiment of which requires appropriate

measurement procedures, but the advantage in the current context is still the research based on the analysis of the literature.

**Table 1**

*Overview of Diagnostic Trends in the Study Area*

| Criteria                                                                                                                                                                                                                              | Examples of methods                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engagement and Satisfaction                                                                                                                                                                                                           | E-learning Satisfaction Questionnaire, ELSQ (Cofini, et al., 2022)<br>Course evaluation (Kuch & Roberts, 2018)<br>End-Of-Course Evaluations, EOCE (Plante et al., 2022)<br>Students 'Evaluation of Educational Quality, SEEQ (Fatani, 2020)                           |
| <i>Limitations: monocriteria, qualitative presentation of data, contextuality (program- or course-driven), subjective method of diagnosis.</i>                                                                                        |                                                                                                                                                                                                                                                                       |
| Acceptance (Readiness and Self-Efficacy)                                                                                                                                                                                              | Technology Acceptance Model, TAM (Rizun & Strzelecki, 2020)<br>Innovation Diffusion Theory, IDT (Al-Rahmi et al., 2019)                                                                                                                                               |
| <i>Limitation: loss of predictors, realized in particular in the Unified Theory of Technology Acceptance and Use (Ahmed et al., 2022), adaptation to the digital environment of the intensional but not the behavioral dimension.</i> |                                                                                                                                                                                                                                                                       |
| Meta-competencies (Readiness and Self-Efficacy)                                                                                                                                                                                       | Metacognitive Skills Assessment Tool, MSAT (Ali et al., 2022)<br>Rubrics for Metacognitive Skills (Vincent-Lancrin et al., 2019)<br>Assessment Criteria for Report Writing, ACRW (Siddiqui et al., 2020)<br>Self-Directed Learning Readiness Scale (Chen & Fan, 2022) |
| <i>Limitation: lack of confirmatory tests of conceptual foundations, limitation of external validity, specialized and difficult operationalization of the phenomenon</i>                                                              |                                                                                                                                                                                                                                                                       |
| Competencies (Achievement)                                                                                                                                                                                                            | Caring Assessment Tool: administration, CAT-Adm (Wolverton et al., 2018)<br>Exam lists (Ślósarz, 2019)                                                                                                                                                                |
| <i>Limitation: difficulty in assessing competencies in dynamics, contextuality (low data transfer potential), qualitative assessment of quality without detail</i>                                                                    |                                                                                                                                                                                                                                                                       |
| Effectiveness (Evaluation of Environment)                                                                                                                                                                                             | Distance Education Learning Environments Survey (Brown et al., 2021)<br>Online Classroom Learning Environment Inventory (Rahayu et al., 2022)                                                                                                                         |
| <i>Limitations: monocriteria, predominance of self-reports, introspective nature, difficulty in diversifying components</i>                                                                                                           |                                                                                                                                                                                                                                                                       |
| Quality (Evaluation of Environment)                                                                                                                                                                                                   | European Association for Public Administration Accreditation Standards (Mikułowski, 2017)<br>Sloan-C Quality Framework (Sadeghi, 2018)                                                                                                                                |
| <i>Limitation: the conditionality of the standards of accreditation, the principles of educational policy, the inconsistency of the proposed frameworks of different management systems</i>                                           |                                                                                                                                                                                                                                                                       |

Source: compiled by the authors based on a literature review.

The authors have preliminarily characterized the procedural trends in the research work in the direction of distance education for managers and in the related spheres. Detailed data of the table,

allowed a certain clarifications concerning the content component reflected in the criteria. The refinements of higher school specialists are more often focused on the indicators of student engagement and satisfaction. As a rule, the subjective experience of a student and undifferentiated indicator of the quality of educational interaction are evaluated. Specialists focus on predictors such as faculty support, course design, and higher education applicant interaction. Satisfaction of participants in the educational process is naturally more pronounced when hygienic factors are provided: favorable social climate, democratic method of activity management, loyal policy of administration, etc. Acceptance (readiness or self-efficacy) is an important category because of the wide implementation of the distance form. For the most part, scholars use self-reports to collect data on factors such as previous online learning experiences, level of digital literacy, and confidence in their ability to learn online. The correspondence of subjective readiness to the previous experience of students who have implemented their own competencies in the digital environment is evident. Separately, we defined such a criterion as metacompetence. In general, those qualities that are measured in the methods aimed at assessing the general competencies of participants in the learning process correspond to the Catalano (2018) category of self-efficacy. However, the formation of a new concept, in which metacompetencies are a zone of a combination of self-regulation and self-efficacy, gives new meaning to this criterion. The three objective components: competencies (achievement), effectiveness (environmental assessment), and quality (environmental assessment) are widely represented in accreditation and external assessment programs. Note that the research methodology in this direction exists in isolation from the realities of educational policy. Summarizing, one can actualize the following limitations of the available methods: focus on self-reports, limited samples, lack of standardization, and longitudinal designs. Distinctly, it should be noted that psychological and pedagogical publications in the field of law are often implemented separately, maintaining a certain distance between the realities of professional activity in higher education and the norms. Students may overestimate their engagement or enjoyment or underestimate the difficulties they encounter. Researchers should take steps to verify self-reported data by triangulating with other sources. There is a lack of standardized measures of the quality of the online learning environment in state government. This can make it difficult to compare the results of different studies or to draw definitive conclusions about the effectiveness of the online learning environment. Most studies rely on convenience samples (convenience samples) of the student body, which may not be representative of the broader population of students in public administration. Researchers should use the randomization method. The tendency toward cross-sectional searches reflects the manifestation of the qualities under study at a specific time point, limiting data on the dynamics of the phenomena, precluding a more accurate understanding of the effectiveness of the online managerial learning environment. At the same time, there is a focus on individual-level factors such as engagement, satisfaction, and self-efficacy, and a neglect of the broader institutional and contextual conditions that can influence the effectiveness of online learning environments. The need to develop a comprehensive approach to research is relevant, which is not possible in today's constraints.

Using the results of analytical-synthetic processing of research publications, operands for solving the research questions mentioned in the presented work are defined. The methodology of the presented work partially bypasses the above limitations. In order to answer RQ1 "What tools are needed in a distance learning environment for managers?", it was necessary to collect data on the technological support used in professional activities by managers and qualitative data on the needs of participants in the educational process (Pokryszko-Dragan et al., 2021). A questionnaire including an open-ended and closed-ended questions of the methods used to provide distance education, the challenges faced by participants in the educational process, and the benefits of this approach to learning Tomczyk (2022) was used. Closed questions are presented on a five-point Likert scale (Kriksciuniene et al., 2019). In

addition, a preliminary assessment of satisfaction with the current state of distance learning using the Satisfaction and Quality questionnaire is included in the design. This method has sufficient psychometric properties. Cronbach's alpha, a measure of the internal consistency of the elements of the method, was calculated for all six factors. Five of the six factors had values above 0.70, while one had a value of 0.691. Model fit statistics were also calculated, the reduced chi-square, including the overall degree of the figure, was 2.016, indicating significant variance in the data set under study. In addition, the Comparative Fit Index (CFI) was found to be 0.883 and the RMSEA was 0.078, indicating that the model was a good fit for measuring appropriate quality (Sebastianelli et al., 2015). The RQ2 question "How are participants in the educational process adapted to the digital educational environment of today?" required a quantitative assessment of the digital competencies of educators and education applicants. The authors used the Tomczyk (2020) questionnaire. The question RQ3 "Does the existing management training strategy meet the requirements of the professional environment?" was implemented in the form of semi-structured interviews with public administration professionals in order to detail the experiences of those actively involved in professional activities. The interview design, on the basis of which the data collection was implemented, is presented in Table 2. Question RQ4 "What competencies are key for future professionals and require increased attention in a distance learning environment?" is the final question and determines the discussion direction of the proposed article. Consequently, quantitative data collection involved the use of two standardized questionnaires, the author's questionnaire, and a number of semi-structured interviews according to the following plan.

**Table 2**

*The Plan for a Semi-Structured Interview with Managers*

| Questions                                                                                                                                  | Aims                                                                                                                                                                      | Reflection                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stage 1. Introduction                                                                                                                      |                                                                                                                                                                           |                                                                                                                                                                |
| 1. Can you state your age, gender?                                                                                                         | Forming a contact, collecting background information.                                                                                                                     | How education and work experience have prepared them for their current role, what criteria are decisive according to the respondent.                           |
| 2. Tell us about your education and work experience?                                                                                       |                                                                                                                                                                           |                                                                                                                                                                |
| 3. Describe your current job responsibilities?                                                                                             |                                                                                                                                                                           |                                                                                                                                                                |
| Stage 2. Key Competencies                                                                                                                  |                                                                                                                                                                           |                                                                                                                                                                |
| 1. What competencies do you think are critical to success in public administration?                                                        | Identification of the competencies that are most important for success in public administration work. Assess competencies on a 5-point Likert scale for further analysis. | Encourage the respondent to reflect on their own strengths and areas for improvement related to those competencies. Update the information about compensation. |
| 2. Can you outline successful cases of implementing these competencies?                                                                    |                                                                                                                                                                           |                                                                                                                                                                |
| 3. Are there any competencies that are particularly important for public administration professionals but are not recognized or discussed? |                                                                                                                                                                           |                                                                                                                                                                |
| Stage 3. Experience and Challenges                                                                                                         |                                                                                                                                                                           |                                                                                                                                                                |

|                                                                                                                             |                                                                                                                         |                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. What are the biggest challenges in public administration?                                                                | Determine the real work conditions of managers, the current demands and constraints that future professionals will face | Draw on the respondent's unique experiences, detailing how those competencies rated as leading and those rated as weak were applied. Initiate a search for alternatives in the assessments. |
| 2. How did you address these challenges and what competencies were important to do so?                                      |                                                                                                                         |                                                                                                                                                                                             |
| 3. Are there challenges unique to the work of public administration, and how do they differ from challenges in other areas? |                                                                                                                         |                                                                                                                                                                                             |

#### Stage 4. Policy, Communication, and Ethics

|                                                                                                                                 |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. How do you balance competitive interests and priorities while working?                                                       | Explore the categories of politics, ethics, and communication in the work of public administration and competence. Given the scope of the category, it is appropriate to allow the respondent the freedom to place emphasis on the topic under study. | Stimulate reflection on the respondent's professional crisis moments, apply the experience of actualizing resources. Refer to specific cases (as examples of any ethical dilemmas the respondent may have encountered) |
| 2. How do you evaluate performance?                                                                                             |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                        |
| 3. Describe your interactions with stakeholders and the public in your work? How do you build and maintain these relationships? |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                        |
| 4. Does your organization have procedures for dealing with ethical and contextual issues?                                       |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                        |

#### Stage 5. Technology and Innovation

|                                                                                                  |                                                                                                                                                                                                        |                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. What technologies, tools, or platforms do you use in your work?                               | Gain a deeper understanding of comfort level during work, the mastery of technology by the specialist. Determine the direction for improving the innovative potential of specialist training programs. | Encourage the respondent to think about the realities of ICT use, possible areas for improvement, the measure of providing the workplace with the necessary tools. Actualize attitudes towards innovation. |
| 2. What problems have you encountered?                                                           |                                                                                                                                                                                                        |                                                                                                                                                                                                            |
| 3. Can you describe innovative approaches or technologies used to improve public administration? |                                                                                                                                                                                                        |                                                                                                                                                                                                            |

#### Stage 7. Conclusion

|                                                                       |                                                                                                               |                                                                                       |
|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1. Have your assessments of previously defined competencies changed?  | Collection of additional details, feedback on the interview process. Final evaluation of updated competencies | Reflection on the interview and new ideas. Identifying ways to improve the interview. |
| 2. Is there anything else you would like to add?                      |                                                                                                               |                                                                                       |
| 3. Do you have any questions or comments about the interview process? |                                                                                                               |                                                                                       |

*Source:* author' development.

## Data Analysis

Data collected from questionnaires and semi-structured interviews were analyzed using a combination of descriptive and logical statistics. Descriptive statistics were used to summarize the data collected from the questionnaires, including the calculation of the mean, standard deviation, and frequency distribution of responses. Inferential statistics were used to test the hypotheses formed during the study. The development of interview results included the identification of key themes and implicit models of professional activity. The analysis was conducted with the help of NVivo software. The actualized constructs were presented in an appropriate visualization and coordinated with the subsequent results. When working with questionnaire data, t-tests were used to compare average student and faculty response scores to questionnaire questions, as well as to compare average response scores of different groups of students and faculty based on their demographic characteristics. Chi-square was applied to determine associations between categorical variables, such as the relationship between gender and ICT readiness among teachers.

## Research Results

The majority of public administration specialists (76.67%) must never take distance learning, while the rest noted that they had some experience with this method of training, namely in non-formal education. These results indicate a discrepancy in the experience of the respondents involved in the survey: while education professionals and job seekers have a steady experience of distance learning, professionals have mostly not interacted with this mode of learning activity. The indicated correlation imposes certain limitations on the transferability of the data obtained. However, the categories that were actualized during the interviews indicate a different kind of inconsistency. The learning environment is used by a methodology that does not include working with modern technology and software common in the field of management. At the same time, those qualities that are evaluated by experts as the most significant in the work, in the educational process are also often leading and appear in the focus of didactic implementations. Table 3 presents information about the core competencies covered in 30 semi-structured interviews. Additionally, data on latent aspects and the most popular examples of successful implementation were provided.

**Table 3**

*Results of Thematic Analysis of Competencies Based on Interviewing*

| Competency           | Frequency  | Successful Implementation   | Hidden Competencies       | Required Connectives                                            |
|----------------------|------------|-----------------------------|---------------------------|-----------------------------------------------------------------|
| Communication skills | 20 (66.7%) | Increased public engagement | Empathy, active listening | Clear, concise communication, ability to explain complex issues |
| Critical thinking    | 18 (60.0%) | Streamlined processes       | Cultural awareness        | Analytical skills, attention to detail                          |
| Problem-solving      | 16 (53.3%) | Cost savings                | Flexibility               | Creative thinking, adaptability                                 |

|                 |            |                                             |                     |                                                   |
|-----------------|------------|---------------------------------------------|---------------------|---------------------------------------------------|
| Decision-making | 14 (46.7%) | Improved service delivery                   | Creativity          | Strategic thinking,<br>risk management            |
| Leadership      | 12 (40.0%) | Stronger interdepartmental<br>collaboration | Strategic thinking  | Emotional<br>intelligence,<br>conflict resolution |
| Teamwork        | 10 (33.3%) | Cross-functional projects                   | Conflict resolution | Collaboration,<br>problem-solving                 |

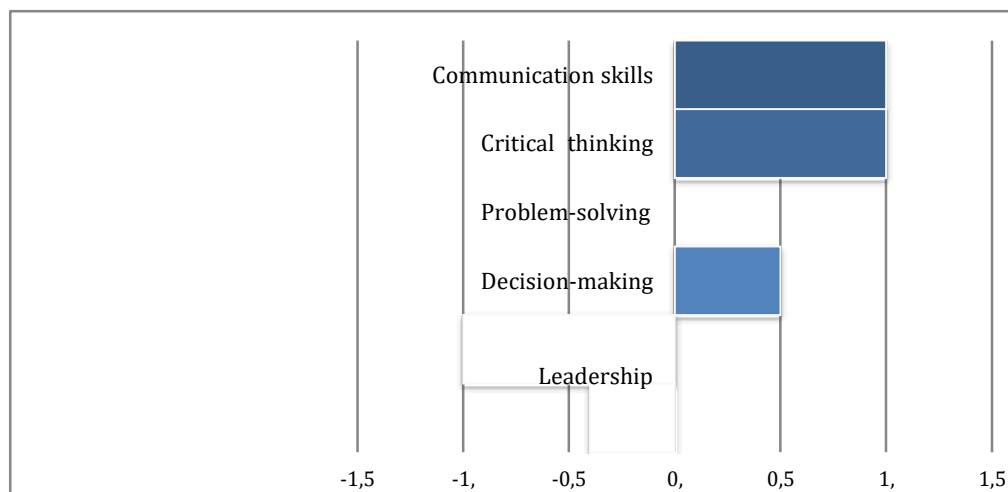
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*Source:* compiled by the authors on the basis of empirical research.

In general, the results of this content analysis are consistent with what are commonly highlighted as important competencies for public administration professionals. Effective communication (66.7%), critical thinking (60.0%), problem-solving skills (53.3%), and decision-making (46.7%) are frequently highlighted as guarantors of success in this field. The fact that these competencies were frequently and consistently discussed during the survey interviews suggests that they are indeed highly valued in the context of public administration in Poland. In addition, the relatively low emphasis on teamwork may reflect the hierarchical nature of public administration in some contexts, where individual decision-making and responsibility are marked by shared decision-making. However, it is important to note that teamwork and collaboration are still important in many areas of nonpublic governance, such as organizations that implement policies to involve the community in private sector activities. Overall, these results suggest that training programs for public administration professionals should prioritize the development of effective communication and integrated thinking, which can help prepare students for the complex and dynamic nature of the workplace and ensure that they are prepared to navigate emerging challenges and opportunities. in the contemporary context Note that according to the interview plan, professionals are given the opportunity to assess the competencies they voiced at the beginning and at the end of the interview. Those changes in the evaluations presented further in Figure 1 serve as an additional field in this problem, since the specialists' reflection took place at a more comfortable pace, and the circumstances of the interview facilitated self-disclosure. For example, communication skills and critical thinking scores increased from 3.5 at the beginning of the interview to 4.5 and from 4.1 to 5.1, respectively. This dynamic may indicate that interviewers placed more emphasis over time on the importance of analytical and interpersonal skills in public administration work as they covered more detail. The gradual increase in detail in the interviewer's questions encouraged managers to refer back to previous examples of competencies and assess them in a new context. The actual strategy offered the following data.

**Figure 1**

*Changes in Assessments of Actualized Competencies During Interviews*



*Source: compiled by the authors on the basis of empirical research.*

As the experts invariably noted the importance of being able to solve problem situations in the work of a public manager, the score remained relatively stable throughout the interview process with a slight decrease from 4.3 to 4.2. In conjunction with the increase in the indicators of decision-making and those mentioned above (communication and analytical abilities), we can predict that the length of service in public administration provides respondents with enough experience to revise those values that were identified as leading at the beginning of the professional path. From the position of their professional experience, the respondents evaluate the leading qualities of a specialist, such as autonomy and subjectivity. At the same time, the characteristics of commitment: leadership qualities, and teamwork were rated lower by specialists over time. Turning to specific instances of professional experience, respondents reconsidered their own perception of social intensionality in the context of managerial activity. Summarizing, the direction of the development of students' competencies in this area was concretized. In order to ensure the proper level of training, it is prognosticated that distance learning programs should be transformed in order to increase the contribution of independent work. Students need new opportunities to develop and practice their analytical skills through case studies, data analysis, and other problem-solving exercises. Written and verbal communication skills through presentations, report writing, and other forms of work should also be promoted (Diachok et al., 2020). Training for the digital environment is identified as a separate area. Particularly, digital literacy takes on a qualitatively new importance for managerial activities. Due to the growing importance of electronic management for future managers, there is a need to master the protocols of working with new technologies. Actually, during the interview, it was determined what kind of software and ICT skills are needed in today's market (see Table 4).

**Table 4**

*The Results of the Thematic Analysis of the Work with Digital Collateral Based on Interviews*

| Competency         | Frequency | Frequency Percentage |
|--------------------|-----------|----------------------|
| Technologies/Tools |           |                      |

|                                                           |    |       |
|-----------------------------------------------------------|----|-------|
| Data analysis                                             | 10 | 33.3% |
| Communication platforms (e.g., email, video conferencing) | 9  | 30.0% |
| Project management tools (e.g., Trello, Asana)            | 7  | 23.3% |
| Cloud-based services (e.g., Google Drive, Dropbox)        | 6  | 20.0% |
| Social media platforms (e.g., Twitter, Facebook)          | 5  | 16.7% |

#### Problems

|                                             |    |       |
|---------------------------------------------|----|-------|
| Bureaucracy                                 | 14 | 46.7% |
| Limited resources (e.g., budget, personnel) | 12 | 40.0% |
| Political interference                      | 8  | 26.7% |
| Resistance to change                        | 7  | 23.3% |

#### Innovative Approaches

|                                          |   |       |
|------------------------------------------|---|-------|
| Open data                                | 7 | 23.3% |
| E-government                             | 6 | 20.0% |
| Artificial intelligence/machine learning | 4 | 13.3% |
| Blockchain                               | 3 | 10.0% |

*Source:* compiled by the authors on the basis of empirical research.

The results of the content analysis responses to questions concerning the use of technology in public administration provided valuable information about the current state of the field. One of the findings is that there is a wide range of technologies, tools, and platforms used by public administration professionals, reflecting the diverse nature of their work. The most frequently mentioned technologies were digital communication tools such as email and messaging programs, followed by databases and information systems, video conferencing software, and various productivity tools. However, the analysis also showed that there were some significant challenges associated with the use of technology in public administration. Data and information security challenges, difficulties with system integration and interoperability, and the need for ongoing training and professional development were cited more frequently. Despite these challenges, interviewees were able to describe innovative approaches and technologies they used to improve public administration. For example, several interviewees discussed the use of artificial intelligence and machine learning to automate routine tasks and improve decision-making processes. Others mentioned the use of blockchain technology to improve the transparency and security of public records and transactions. These findings have important implications for distance learning for administration and public administration professionals. It is clear that technology is an integral part of their work and that ongoing training and professional development in this area is essential if they are to continue to perform their roles effectively. Distance learning can play a key role in ensuring this by offering flexible and accessible courses that can be designed to the specific needs and challenges of public administration professionals, such as data analysis or working with open data.

However, the question of how to improve the quality of remote interaction remains open. In addition, awareness of the predictors of the effectiveness of didactic interventions plays an important role. Table 5 actually shows the results of the multivariate linear model. The constructs proposed in the diagnostic method “Satisfaction and Quality” were defined as dependent variables: Learning, Satisfaction, and Quality proper, predicting the success of learning interventions in distance management training.

**Table 5**

*The Multivariate Linear Regression Model*

| Variable     | R-squared | F-value | p-value | Strongest Predictor           | Beta Coefficient |
|--------------|-----------|---------|---------|-------------------------------|------------------|
| Learning     | 0.326     | 92.58   | <0.001  | Course content                | 0.43             |
| Satisfaction | 0.239     | 61.92   | <0.001  | Professor-student interaction | 0.53             |
| Quality      | 0.484     | 110.03  | <0.001  | Mentoring support             | 0.57             |

*Source:* compiled by the authors on the basis of empirical research.

## Discussion

The presented study was not intended to verify the theoretical model of the educational process in the distance mode. The initial goal was to identify trends in the exploratory study. Thus, the analysis conducted through a combination of quantitative and qualitative methods makes it possible to bring the learning interaction closer to the realities of professional activity. Particularly, semi-structured interviews with specialists in public administration focused on competencies and revealed several key themes. Professionals identified the importance of competencies such as communication, critical thinking, and ICT skills, and noted the need for practical experience to complement theoretical knowledge. The challenges of balancing competing interests and priorities in their work, evaluating their performance, and building and maintaining relationships with stakeholders and the public were also discussed. All of these categories should be conceptualized in training. Namely, the study identified the most significant factors that should be considered in the design and implementation of distance learning courses in this direction. High-quality course content and structure, as well as strict academic standards, should be provided first. According to the presented model, the content of the programs determines their effectiveness. Professionals need to rely on the qualities that are presented in the results of the thematic analysis, taking into account the ultimate goal of learning interactions - preparation for professional activities. The interviews showed that competencies such as communication, adaptability, and problem- solving are crucial and that there is a need for continuous professional development in order to keep abreast of new technologies and changing trends in the field. At the same time, the linear model analysis revealed meaningful relationships between various factors such as course content and satisfaction with distance learning, which specifies the direction of further movement for professionals in the educational segment (Rodek & Orlińska, 2021). Turning to the experience of Ober and Kochmańska's (2022) research design, we can confirm the importance of the social-emotional aspect of distance learning for management students. It is the interpersonal specificity that is decisive in the context of interaction with digital tools. It is necessary to provide students with an experience of involvement in the process of knowledge construction. In addition, communicative abilities are the leading competence necessary for the realization of management goals. By developing

interpersonal interaction, students are well-prepared to begin their careers and perform their responsibilities effectively. Moreover, it is important to promote interaction between instructors and students, as well as among students themselves, in order to facilitate the experience of academic stress in a crisis environment. The findings also underscore the importance of ICT skills and experiences for both academics and higher education applicants. To prepare students for the demands of the modern workplace, distance learning programs must provide opportunities for students to develop and improve their ICT skills, not just use software to perform traditional didactic tasks. Teachers must also have the necessary ICT skills and experience to use technology effectively in their teaching (Tomczyk, 2019). It is the professional development of the teaching staff that can be outlined as a vector for future development. Additionally, the results illuminate that gender and age differences in students' and teachers' experiences with distance learning are not significant. Consequently, providing continuing education and resources for self-study has the potential for inclusive education in a digital environment. Students and teachers will be able to fully participate in and benefit from distance learning programs despite the format of their implementation (Adamczyk & Betlej, 2021). In conclusion, the results in a visual representation for specificity are summarized (see Table 1).

**Table 6**

*Answers to the Research Questions in this Paper*

| Research question                                                                                                                                                                                | Statistical prediction                                                                                                                                                                                                                                    | No              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| What tools are needed in a remote management training environment?                                                                                                                               | A number of digital platforms and technologies used in management (e.g., Open data, E-government, Artificial intelligence, machine learning, Blockchain).<br>Thematic analysis of 30 semi-structured interviews with specialists in public administration | RQ <sub>1</sub> |
| How adapted are the participants in the educational process to the digital environment of today?                                                                                                 | ICT proficiency among students and faculty is sufficient (mean=4.1 and mean=3.9 respectively).<br>ICT Usage and ICT Skills predict positive changes in satisfaction with the educational process ( $\beta=0.24$ , $p<0.01$ )                              | RQ <sub>2</sub> |
| Does the current management training strategy meet the requirements of the professional environment?                                                                                             | The program requires review and inclusion of new categories. Management systems are dynamic and valenced.<br>The strongest predictor of dependent variables is course content ( $\beta=0.43$ , $p<0.01$ ).                                                | RQ <sub>3</sub> |
| What are the key competencies for future specialists and require increased attention in a distance learning environment?<br><i>Source: compiled by the author on the basis of data analysis.</i> | Communication skills, Critical thinking, Problem-solving, Decision-making, ICT Skills, Innovation acceptance<br>Thematic analysis of 30 semi-structured interviews with specialists in public administration                                              | RQ <sub>4</sub> |

Overall, the results of this study are important for the design and implementation of distance learning programs in public administration. Given the factors identified in this study, educators and administrators, as stakeholders, can create high-quality distance education programs that meet the

needs of students and provide the competencies necessary for successful self-advocacy. The COVID-19 pandemic has heralded changes in education, including how courses and programs are delivered (Hibszter & Tracz, 2021). However, distance learning offers educators new opportunities and approaches to training in administration and public administration. However, there is a need for ongoing efforts in order to improve the quality of education and better support students. Finally, competencies such as communication and adaptability are important to success in this field and should be the focus of curriculum development.

## Conclusions and Implications

The study aimed to investigate of the organization of distance learning in the process of training specialists in administration and public administration peculiarities on the example of the Polish experience. A mixed approach was used, 205 students and 84 teachers were involved in the survey, and semi-structured interviews with 30 specialists from public administration were implemented. According to the results, in the available conditions, students have the potential to implement in the field, given a sufficient level in the assessments of their own digital competencies and the results of learning interactions. The leading role in the effectiveness of training programs is played by the course content that determines the final students' skills. Thus, students and teachers are ready for the new format of work, so more attention should be paid to the content of educational programs and their actualization to modern requirements. Particularly, the ability to productively solve management problems and management digitalization processes will play a primary role in the near future.

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