

CONCEPTS OF OPTIMIZING EDUCATIONAL MANAGEMENT IN THE REPUBLIC OF MOLDOVA

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Abstract: *Performance monitoring and evaluation are essential for the continuous improvement of the quality of education and for ensuring effective educational management. International and local examples show that transparent, continuous and evidence-based assessment can guide schools and teachers to better adapt teaching methods and curriculum to students' needs. The implementation of a digital monitoring system in the Republic of Moldova could contribute significantly to the improvement of school results and the general performance of the educational system.*

In this article we present some concepts for optimizing educational management in the Republic of Moldova, based on digitalization, participatory management and strategic leadership, with emphasis on the importance of monitoring the managerial human resource in general education, considering the prospects and opportunities for the socioeconomic development of the country.

Keywords: *digitization, educational management, participatory management, efficiency in education, strategic leadership.*

1. Introduction

Because **education**, in the Republic of Moldova, represents a national priority, being the basic factor in promoting democratic values, ensuring human and citizen rights, in the development of human capital, in the formation of national consciousness and identity, in capitalizing on integration aspirations European, with a primary role in creating the premises for sustainable human development and building a society based on knowledge, with a view to integration into the European Union, a connection of national educational policies to European ones and the implementation of education for sustainable development is required. This would primarily mean focusing on the development of concepts for optimizing the educational system, including its management, and the development of a quality educational society, the culture of quality being centered on a system of values, recognized and assumed in the long term.

The optimization concepts of educational management in the Republic of Moldova are closely related to the modernization and efficiency of educational processes, the improvement of the quality of teaching and learning, as well as the adaptation of the educational system to contemporary needs, which include:

1. *Developing flexible and competency-based curriculum.* Adapting the curriculum to reflect changes in the labor market and to develop relevant skills among pupils/students.
2. *Continuous training of teaching staff.* Improving the training and professional development of teachers to increase the quality of the educational act.

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3. *Decentralization of educational management.* Giving more responsibilities to local educational units, for greater autonomy and adaptation to local specifics.

4. *The use of information technologies in education.* Integrating digital tools and online platforms into teaching and management processes to streamline access to resources and administrative processes.

5. *Increasing community involvement.* Stimulating partnerships between educational institutions, communities and the private sector for better cooperation and mutual support.

6. *Performance monitoring and evaluation.* Implementation of a transparent evaluation system based on performance indicators to improve management efficiency.

We will analyze the last three concepts in more detail, through the prism of optimization, which implicitly provides for the valorization of human resources, transparency and time efficiency.

2. Basic content.

The use of information technologies in education or the digitization of education. Among the main features of the process of using information technologies in education are:

1. *Digitization of educational processes*, which involves the integration of digital tools (tablets, laptops, projectors) and online platforms to improve teaching, learning, assessment and administrative management.

2. The use of *e-learning platforms and open educational resources (OER)*, online that provide free and diversified access to learning materials.

3. The use of *collaboration and communication tools*, applications which facilitate communication between teachers, students and parents (ex: Google Classroom, Microsoft Teams, Zoom, etc.).

4. *Analysis of educational data*, using educational management systems that collect data on student progress and the effectiveness of teaching methods, for a constant improvement of the educational process.

In this sense, concrete examples of good practices can serve as:

- *Google Classroom and Microsoft Teams in Moldova:* Following the pandemic, many schools in Moldova have adopted platforms such as Google Classroom and Microsoft Teams to facilitate remote teaching. These platforms allow teachers to distribute educational materials, assign homework, and assess students in an efficient and organized manner. In addition, students can work collaboratively and access materials from anywhere, increasing accessibility to education.

Technology-assisted education in Estonia: Estonia is one of the leaders in the use of educational technologies. In Estonian schools, every student has access to a computer or tablet, and most school activities are integrated into digital platforms. Students learn programming from an early age, and teachers are constantly trained to use technology creatively in the teaching process.

- *Romania - EduCred Digital Platform:* In Romania, the Ministry of Education has developed the EduCred platform, which offers training courses for teachers, but also digital educational resources for students. This is an example of good practice in the digitization of education, allowing uniform access to educational materials and training for teaching staff to ensure an efficient transition to digital education.

- *Assessment and educational management platforms in Finland:* Finland uses advanced educational platforms that integrate student progress monitoring, personalized statistics and automated

assessments. This system provides constant feedback to students and teachers, allowing continuous improvement of educational performance. Finland has also focused on reducing administrative paperwork by digitizing school administrative processes.

- *E-learning platforms and digital resources*: In the Republic of Moldova, various schools and educational institutions have started to implement e-learning platforms, such as Moodle and Khan Academy, which provide access to a variety of open educational resources. Also, portals such as educatieonline.md were created to offer video lessons and other digital resources, freely accessible to students and teachers.

The challenges to which the process of using information technologies in education is subject are: lack of access to quality technology, especially in rural areas; continuous quality training of teaching staff; lack of permanent technical support and maintenance.

Community involvement in educational management. Among the main features of the community involvement process in educational management are:

1. Promoting collaboration between schools, parents, local organizations, public authorities and the private sector to create a stronger and more connected to community needs educational environment by establishing *school-community partnerships*.
2. Promoting *volunteering and mentoring* by encouraging the involvement of volunteers from the community, as well as specialists who can become mentors for students and young teachers, establishing a new practical format in education.
3. *Participatory decision-making* by creating decision-making structures that include community stakeholders so that they actively contribute to the formulation of local educational policies and priorities through digital tools such as surveys and evaluations of educational services.
4. Organization of *community educational and extracurricular events and activities*, meaning in partnership with the community, to integrate students in projects and events that reflect local culture and needs.

In this regard, as examples of good practices can serve:

- *"School-Community" programs in Finland*: In Finland, close collaboration between schools and communities has led to the creation of extracurricular programs that encourage active participation of students in community life. For example, integration of volunteer activities into the curriculum, where students are encouraged to participate in community projects such as supporting the elderly, environmental protection or public health initiatives. It helps students develop social responsibility and transversal skills.
- *Romania - "School after School" Program*: In Romania, the "School after School" program promotes the involvement of the local community in supporting the education of students from disadvantaged backgrounds. The community contributes through donations, volunteering and the involvement of local mentors, who help students improve their academic performance and participate in creative extracurricular activities. Thus, a continuous learning space, supported by the entire community, is created.
- *Moldova - Community projects in rural schools*: In Moldova, various community projects were launched in rural schools, where collaboration between local authorities, parents and teachers led to the improvement of educational conditions. For example, projects to renovate schools or organize extracurricular activities were carried out through local contributions and grants provided by NGOs.

One such project is the "Community School", which involves parents and volunteers from the village in organizing traditional craft workshops or digital skills courses.

- *Great Britain - "Community Schools" Initiative:* In Great Britain, Community Schools are institutions that work closely with families and community organizations to provide extended services and support. These schools not only provide formal education, but also access to counseling programs, after-school care, parent training, and other community services. This initiative reduces the barrier between school and community, providing holistic support for students and their families.
- *"Youth Civic Engagement" program in Moldova:* In Moldova, an example of good practice is the "Youth Civic Engagement" program, which encourages students from various schools to get involved in local civic projects. This program offers young people opportunities linked to leadership, personal development and direct involvement in solving community problems. Projects range from organizing cultural events to environmental and social initiatives.

At the same time, the process of community involvement in educational management is also accompanied by certain challenges, such as: lack of human and financial resources; lack of interest or involvement; ineffective coordination of community partnerships and low institutional support from the community.

Performance monitoring and evaluation in education. Among the main features of the process of monitoring and evaluating performance in education are:

1. Creating clear sets of *educational performance* indicators that measure the performance of students, teachers and educational institutions. These indicators include academic achievement, graduation rate, individual student progress, involvement in extracurricular activities and other aspects of holistic development.
2. Making assessment of educational performance an ongoing process that provides feedback to both teachers and students to improve teaching and learning in real time. *Continuous assessment and feedback* allow rapid and personalized adjustments to teaching methods and curriculum.
3. Implementation of *digital assessment tools* such as digital platforms that facilitate performance monitoring and collection of relevant data in real time. These tools allow detailed analysis of educational progress based on interactive reports and graphs.
4. *Periodic institutional evaluation* not only based on the academic performance of the students, but also based on the internal management, the resources used and the quality of teaching. *Periodic self-assessment* is also an important tool for continuous improvement.

In this regard, specific examples of good practices can serve as:

- *Digital Assessment System in Estonia:* Estonia uses a digital student performance monitoring system that integrates data on academic progress, teacher feedback and parent involvement. The system is accessible online and allows tracking the progress of each student in real time. Teachers and parents have access to detailed reports that help identify strengths and areas for improvement. This allows rapid adjustment of teaching methods.
- *Romania - ADMA school management platform:* In Romania, the ADMA platform (Academic Development Management Application) allows schools to monitor in detail the activity of students and teachers. Through this platform, data (class attendance, grades, extracurricular activities) is automatically collected from various sources, analyzed and transformed into personalized

performance reports for each student and class. The platform also provides information on school progress at regional and national level.

- *The PISA program and its use in the Republic of Moldova:* The Program for International Student Assessment (PISA), carried out by the OECD, provides an important framework for monitoring educational performance at a global level. In the Republic of Moldova, PISA data is used to analyze the weak points of the education system and to implement improvement strategies. For example, poor results in certain areas have led to the adoption of specific measures to improve the curriculum and teacher training.

- *Moldova - National Performance Evaluation System:* In the Republic of Moldova, the Ministry of Education implements a national evaluation system based on key performance indicators for each educational level. This system monitors both academic achievement and involvement in extracurricular activities, absences and dropout rates. The data is collected annually and used to make decisions about the allocation of resources and the adjustment of educational policies.

- *Great Britain - "Ofsted" (Office for Standards in Education):* In Great Britain, Ofsted is the government agency responsible for the inspection and evaluation of schools and other educational institutions. Ofsted assesses the performance of educational institutions based on clear criteria, including the quality of teaching, management and leadership, pupil outcomes and school climate. Ofsted reports are public and provide parents and the community with a transparent picture of how schools are performing. This approach creates a positive pressure to improve the quality of education.

- *Self-evaluation of schools in Finland:* In Finland, schools are free to carry out annual self-evaluations, where they collect data about their performance and receive feedback from students, parents and the community. This process is seen as an opportunity for learning and continuous improvement without the pressure of rigid external assessment. Self-assessments focus on identifying areas for improvement and implementing effective solutions at local level.

The challenges that arise on the given subject would be: limited resources (financial and technical) for the implementation of digital assessment systems; resistance and reluctance to change; lack of transparency and fairness.

Creation of the EduManager - national level digital software. In the sense of recognizing the importance of optimizing and confirming the concepts described, we propose the project of a digital software: EduManager – monitoring system of managerial human resources in education, at the national level, the design of which can be elaborated with the help of the Figma application, and in the 1st figure is presented the start page of its prototype.

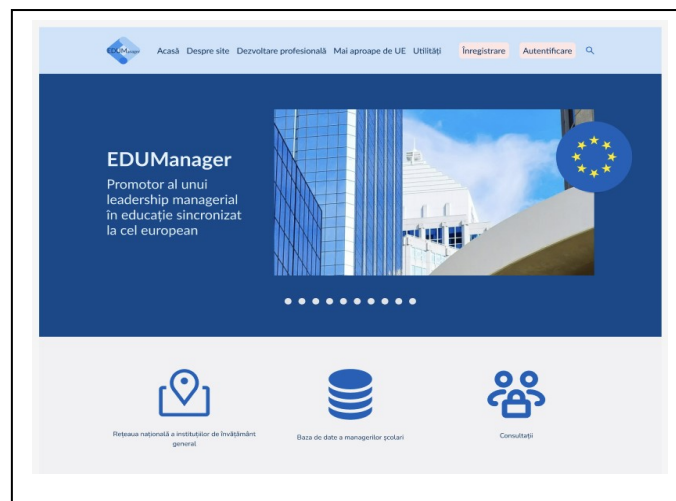


Figure 1. Home page

Source: https://www.figma.com/proto/VICWPLrhDpDarAciH7KJoY/Project3_Duca-Diana?node-id=3-3&t=0oMgi7aiFNZMSULv-1

Among the main factors that determine the need to develop such a digital software for monitoring the managerial human resource in education are:

- the need to have, at a national level information on the composition and qualification of managerial human resources in the education system in order to supply educational institutions with qualified teaching and managerial staff, to plan and implement measures to attract and maintain staff in education, initial and continuous training of specialists in the field of education;
- the need of real data about: each educational institution; the number of managerial staff; the number of students; employees of educational institutions, necessary for effective planning, monitoring and evaluation; correctness and legality of the use of material and/or financial resources, in real time;
- the current lack of informational support for measuring the performance of educational actors and making rankings of educational institutions, collecting and publishing open data about each educational institution and management team, including about the education system as a whole;
- the need of prevention of cases of erroneous, difficult and expired reporting;
- the current lack of informational support for finding cases of faulty management of educational institutions in the Republic of Moldova.

The **specific objectives** of the proposed system are:

- *Implementation of innovative digital tools for development of leadership skills, community involvement and use of digital technology in educational management;*
- *Streamlining administrative processes and reducing costs associated with educational management;*
- *Formation of a more qualified and more adaptable to the market economy workforce;*
- *Facilitating access to educational resources and increasing the quality of education, thus preparing students for the demands of the digital economy.*

And as a **major objective**: *Streamlining the management of the field of education in the Republic of Moldova in order to increase the performance of teaching staff.*

The **principles** that will act as the basis for the creation of the digital tools included in the system:

- to be focused on real needs and problem solutions;
- to contain SMART indicators (Specific, Measurable, Accessible, Relevant, Time-bound);
- implementing clear and objective assessment procedures to avoid distortions or personal preferences.

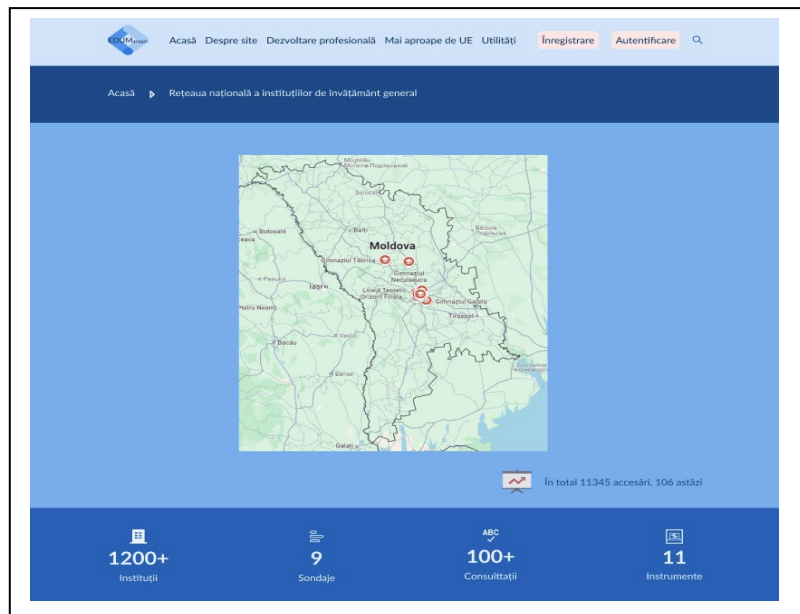


Figure 2. Page National Network of educational institutions

Source: https://www.figma.com/proto/V1CWPLrhDpDarAciH7KJoY/Project3_Duca-Diana?node-id=3-3&t=0oMgi7aiFNZMSULv-1

2nd and 3rd figures show sections of this system, such as the National Network of educational institutions, the Database of school managers, both linked to the actual geographic map of the country, and 4th Figure shows Strategic Directions and Site Map, where we can see which sections are included in the system and the tools available for the activity of managers, authorities with control rights or civil society. 5th and 6th figures show examples of dialog boxes that provide account creation for managers or login, if an account already exists.

All these program or design sequences are parts of the prototype of the proposed system, which means that many more, more diverse and interactive work tools can be included in the actual system, depending on the results of its wider design.

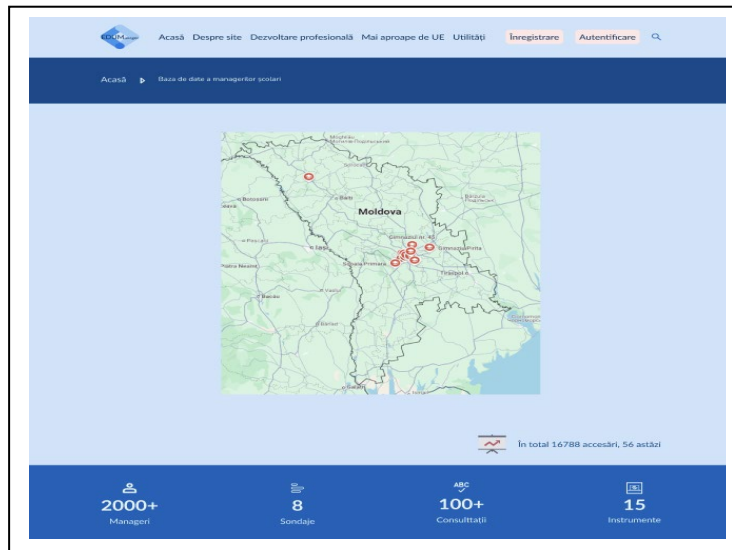


Figure 3. Page Database of school managers

Source: https://www.figma.com/proto/VICWPLrhDpDarAciH7KJoY/Project3_Duca-Diana?node-id=3-3&t=0oMgi7aiFNZMSULv-1

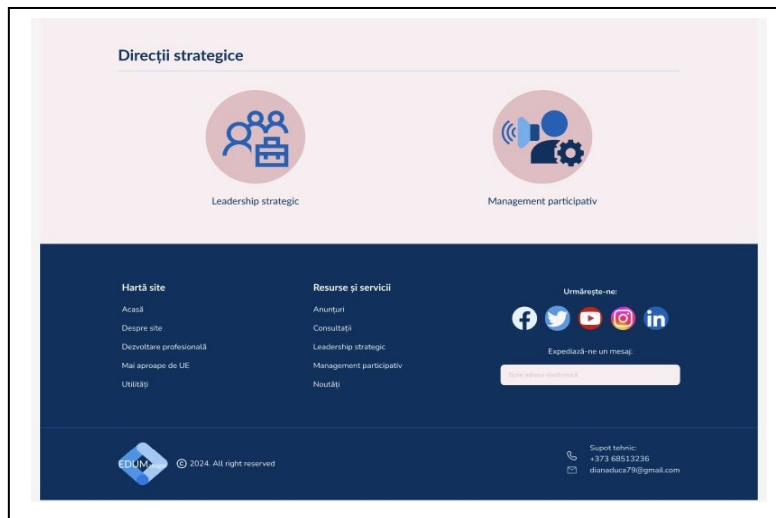
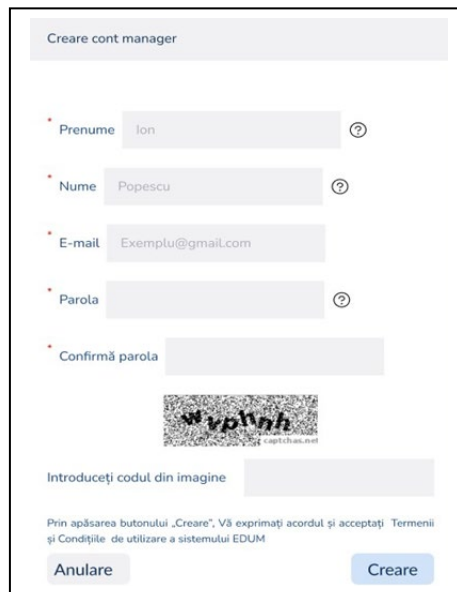


Figure 4. Section on the Home page

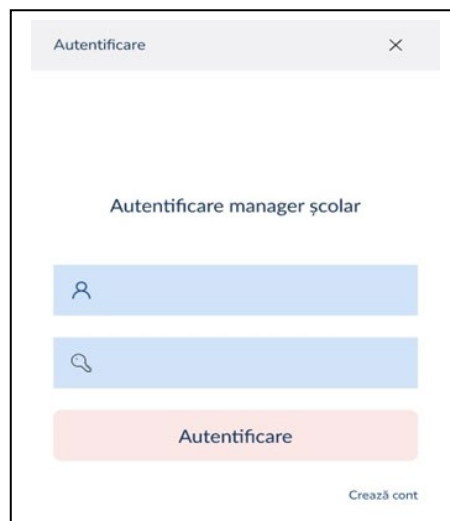
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The image shows a web form titled "Creare cont manager" (Create manager account). It contains several input fields with red asterisks indicating required fields: "Prenume" (First name) with the value "Ion", "Nume" (Last name) with the value "Popescu", "E-mail" with the value "Exemplu@gmail.com", "Parola" (Password), and "Confirmă parola" (Confirm password). Below the password fields is a CAPTCHA image with the text "wvplnh" and "captchas.net". Underneath the CAPTCHA is a text input field labeled "Introduceți codul din imagine" (Enter the code from the image). At the bottom, there is a small disclaimer: "Prin apăsarea butonului „Creare”, Vă exprimăm acordul și acceptăm Termenii și Condițiile de utilizare a sistemului EDUM" (By clicking the "Create" button, we express our agreement and accept the Terms and Conditions of use of the EDUM system). There are two buttons at the bottom: "Anulare" (Cancel) and "Creare" (Create).

Figure 5. Account creation questionnaire

Source: https://www.figma.com/proto/VICWPLrhDpDarAciH7KJoY/Project3_Duca-Diana?node-id=3-3&t=0oMgi7aiFNZMSULv-1



The image shows a login dialog box titled "Autentificare" (Authentication) with a close button (X) in the top right corner. The main heading is "Autentificare manager școlar" (School manager authentication). There are two input fields: the first has a person icon and the second has a magnifying glass icon. Below these is a large pink button labeled "Autentificare" (Authenticate). At the bottom right, there is a link labeled "Crează cont" (Create account).

Figure 6. Login dialog box

Source: https://www.figma.com/proto/VICWPLrhDpDarAciH7KJoY/Project3_Duca-Diana?node-id=3-3&t=0oMgi7aiFNZMSULv-1

It is certain that the proposed digital system will preserve a certain degree of individuality of the management teams and/or educational institutions depending on the geographical location, the number of students, employees, the profile and type of the institution, the neighboring community, etc. Likewise, this system will offer the transfer of managerial activity from paper to digital, in terms of planning-reporting, including the opportunity to communicate in real time about problems,

solutions, proposals, enrolling and participating in various trainings, organizing various discussions, surveys, evaluations, etc.

3. Conclusions.

Following the above, we can generalize the article to the following conclusions:

1. The educational management optimization concepts presented will allow: the reduction of the administrative workload, the efficiency of teaching and learning and the monitoring of the performance of students, teachers and managers, the creation of an educational system better connected to the real needs of students and the community.
2. International and local examples show that the successful implementation of information technologies depends on the continuous training of teachers and managers, access to digital infrastructure and the creation of a support system for users, and the active involvement of the community and all educational actors leads to the creation of more inclusive, innovative and effective schools.
3. The impact produced as a result of the creation of this support system in terms of qualitative and effective monitoring and evaluation of educational performance will more than justify the material resource invested.

As **additional recommendations** to prevent the challenges of implementing the described concepts, we propose:

1. Implementation of government programs to provide equipment and digital infrastructure for all students and a well-established system for keeping equipment and platforms functional;
2. Investments in effective continuing education courses and support resources for teachers;
3. Attracting external funds, such as grants from international NGOs, collaboration with the private sector and encouraging local authorities to prioritize education through participatory budgeting;
4. Organizing awareness campaigns that emphasize the long-term benefits of active involvement in the education of the younger generation and creating advisory committees that include representatives from all segments of the community.

Thus, only through long-term, well-thought-out investments connected to the technological and socioeconomic development of the countries in the region will we ensure the relevance, sustainability and durability of the educational system in the country.

Bibliographical references.

1. AUBREY C. D. (2007). *Managementul performanței. Strategii de obținere a rezultatelor maxime de la angajați*. Editura Polirom. ISBN (13): 978-973-46-0426-5, 378 pag.
2. CHICU V., LÎSENCO S., BEZEDE R. (2020). *Managementul calității versus calitatea managementului*, ProDidactica, Chișinău, 58 pag.
3. DANUTA E. (2013). *Rețele de cooperare și autoeducație. Teorie și practică*. ABC a Wolters Kluwer business. Editura: Wolters Kluwer Polska. ISBN-978-83-264-6083-8, 244 pag.
4. DUCA D. (2021). *Analiza așteptărilor și nivelului de pregătire pentru succes în relațiile dintre conducători și subalterni*. MOLDOSCOPIE. Publicație periodică științifico-practică, Categoria B, Anul 25, nr. 1 (92), ISSN 1812-2566, E-ISSN 2587-4063, pag. 119-133.
5. DUCA D. (2021). *Cercetare cu privire la valoarea socială a relațiilor conducători - angajați*. MOLDOSCOPIE. Publicație periodică științifico-practică, Categoria B, Anul 25, nr. 2 (93), ISSN 1812-2566, E-ISSN 2587-4063, pag. 99-112.

6. DUCA D. (2021). *Gestionarea comunicării eficiente cu angajații*. Conferința "Comunicarea interpersonală". Dimensiuni cognitive și praxiologice ale comunicării. Ediția 12-a, Vol. 1. România, Iași. ISBN 978-606-685-793-2, pag. 108-116.
7. DUCA D. (2021). *Sistemul de calitate al managementului educațional preuniversitar din Republica Moldova: aprecieri și perspective*. MOLDOSCOPIE. Publicație periodică științifico-practică, Categoria B, Anul 25, nr. 4 (95), ISSN 1812-2566, E-ISSN 2587-4063, pag. 86-94.
8. DUCA D. (2022). *Autoevaluarea. procedură birocratică sau premisă a managementului calității?*, Materialele Conferinței Științifice Internaționale "Cercetarea, dezvoltarea și inovarea din perspectiva eticii globale / Research, development and innovation from the perspective of global ethics", Ediția a 3-a, Chișinău, ISBN 978-9975-45-821-4, pag. 197-200.
9. PEELING, N. (2008). *Manager de mare succes: ce știu, ce fac și ce spun cei mai buni manageri* / Nic Peeling; traducerea: Mihai-Dan Pavelescu. - București: Meteor Press, 255 pag.
10. POMIANOVSKI D., POMIANOVSKA M., ORE (2016). Asistența Poloniei. *Bun management*, Varșovia.
11. VEVERIȚA A. M., ZNACENI A., SECRIERU A., UNGUREANU C., GAIBU C., CHIRIAC L. (2015). *Elaborarea proiectelor, Ghidul autorităților publice locale*, Chișinău, 132 pag.