

INSIGHTS FROM ROMANIA ON DISTANCE LEARNING VIA DIGITAL TOOLS AND PLATFORMS DURING ISOLATION PERIOD

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Abstract

The aim of the study was to analyse the good practices of various educational actors, and based on these, to propose ways to improve the education system, both in times of crisis and in general. The present study also drew on formal data, provided by relevant bodies in the field of education, as well as on the opinions of civil society representatives. The basic pillars of the current research were educational policy documents in force and the experience gained at national and international level in the field of education, in general, and in the evaluating the quality of education, in particular. As the present study was conducted during the pandemic caused by the spread of Covid-19, its main emphasis is on the organisation of remote / online education, allowing to discern certain features compared to traditional, classroom-based education. The approach ranges from the conceptual to the methodological dimensions to explore the experimental field, which includes: information, comparative analyses, inductive and deductive testing of the ideas and interpretations supported by real situations. This study of great topicality and originality can be considered a concrete support for researchers, academics and managers in what is an interesting field of economy.

Keywords: digital tools, pandemic, virtual education, period, learning

Introduction

The crisis situation of spring 2020, triggered by COVID-19 pandemic, has disclosed dormant issues at society level, issues that will definitely contribute to changing people's mindset. Under the circumstances, there is a strong urge to radically change the educational system which drives teachers to become more aware, better trained and also more flexible for tomorrow's challenges. It has been

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shown that the traditional education system should be radically changed because it is too rigid (students learn by force, for fear of teachers) and focused on the cognitive side and less on the affective and psychomotor ones.

Furthermore, this change should include a greater commitment of both parents and community members to the education of the younger generation, as active partners of the professional educators. Even students should be trained how to teach and thus become trustworthy partners of their teachers, because they will be more open to learning and will efficiently employ their various skills and intelligence to further improve themselves and become significant contributors to the development of society.

This study also relies on the official data provided by the competent authorities in the educational field and opinions expressed by the representatives of the civil society as well (Iasi County School Inspectorate, Association Of The Euroregion Siret-Prut-Dnistro, Non-Governmental Organizations, etc.)

The applicable educational policies, along with the experience gained in the education field at national/ international level and through assessing the quality of education, have served as pillars of the present research endeavour. To assess the quality of the educational act as objectively as possible, the analysis included all actors engaged, namely teachers, school managers, education specialists, members of the larger education community such as parents and students, and indirect participants as well, such as representatives of the civil society. To maximize the efficiency of this scientific investigation, special emphasis has been placed on the public perception of the education quality and, accordingly, online questionnaires and interviews were conducted, addressing direct and indirect beneficiaries of the educational system as well as data collection instruments for assessing the education quality.

As part of our research, a survey was carried out based on a questionnaire that was completed by 60 students, from several high school classes, from a school in the municipality of Iași, a city located in the North-East Region of Romania. The respondents were between 12 and 13 years old; 40% of them were male and 60% female. They were sent e-mails or online messages in study groups. The period in which the questionnaire was applied was between April 1 and June 1, 2021. Out of the 60 questionnaires, 57 were valid. The questionnaire included 8 questions, formulated concisely, clearly and objectively. The data obtained are confidential and will be used only for scientific purposes.

The concept of research includes the policies and approaches employed by governance to provide for the educational community and society on the whole, in terms of effective participation instruments for assessing the education quality, with a focus on distance and online learning, through digital tools. The digital transformation reshapes the professional way in many ways. Just to name a few, communication and collaboration have become faster, lighter and more available across the globe, the expansion of the online world has forged its way to new models of professions and businesses, while the physical work and daily tasks are progressively taken over by robots and automated systems. These changes affect the

future labour market in terms of labour organization, employer-employee relationships, qualification requirements, and also influence what today's education should achieve (Crudu and Cara, 2016).

ICT Technology (information and communications technology) and digital technologies are part of the daily life of most employees nowadays. Most jobs use PCs with broadband internet. Portable digital devices are largely popular, allowing employees to organize their work in a more flexible way, in terms of time and space. The appropriate agreements between employers and employees can benefit from the work-life balance and feeling of autonomy and independence as well (Birzea, 1995).

Romania has made big steps, with great results so far, towards introducing *information and communications technology* in the educational system. Between 2001 and 2009, the Computerized Educational System program (Romanian acronym is SEI) provided computerized labs, educational software, and training for teachers across the country. After Romania became a member of the European Union in 2007, many EU-funded projects were implemented, delivering both technological equipment in the classrooms and training programs for teachers. All these programs, complemented by other initiatives, have helped Romania build a very solid “foundation” for constructing the digitalization edifice (Noveanu and Potolea, 2008).

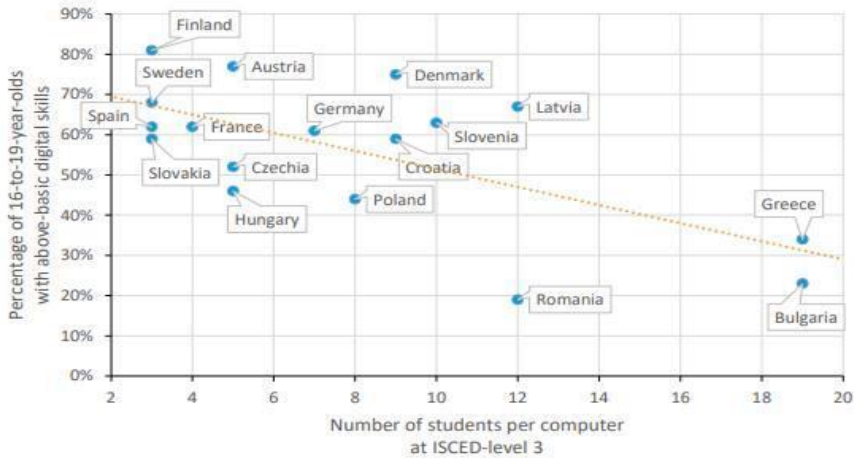
1. Online instruments and platforms

The children of the digital era are familiar with computers, tablets, mobiles, and smartphones, and interact via games and virtual stories from an early age. However, as they grow and enrol in the educational system, they are facing the gap between reality and what they learn in school. This way, by adopting the new technologies, the school comes closer to the children's needs. And here we are speaking about digital tools which can provide real support for the learning and teaching process alike. They are already at hand and provided they are used appropriately; digital tools can enhance the educational act. However, it is highly important that teachers could effectively use these digital tools and creatively manage interactive lessons. And continuous learning is instrumental to this process.

The lesser the number of students with access to a computer, the lower is the percentage of those with above-basic digital skills. In this regard, Bulgaria, Greece, and Romania occupy the lowest positions in Europa (Blake and Mouton, 1982).

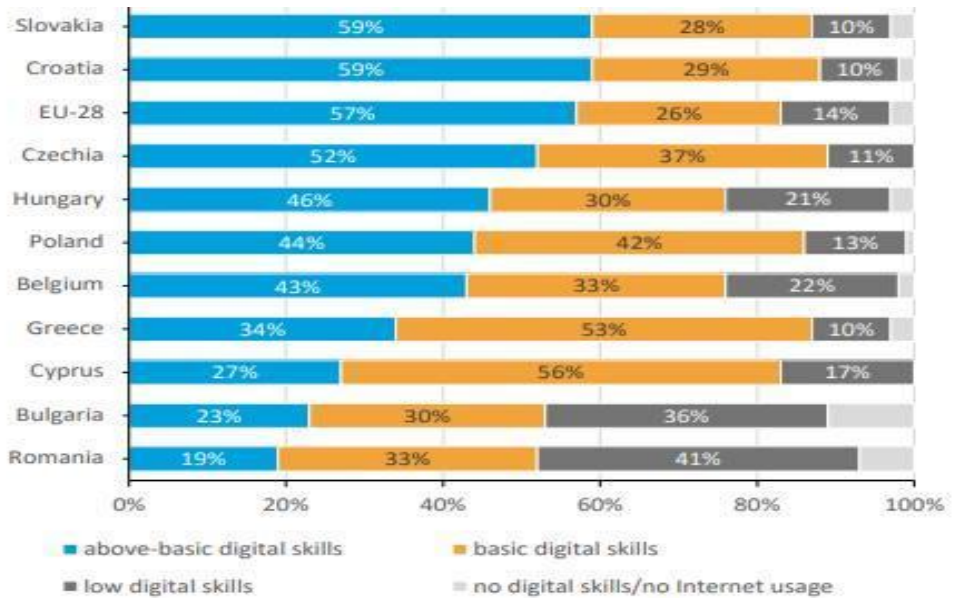
A negative feature is the fact that Romania occupies the last position in Europe in what concerns the 16-19 aged student category with above-basic digital skills. Accordingly, merely 19% of the Romania students in the above-mentioned age category have above-basic digital skills (at the opposite level, over 80% of the students from Finland and Luxembourg have above-basic digital skills). The percentage ranges between 70 and 80% in other European countries, between 60 and 70% in 9 European countries, while the Eu average is 57%.

Figure 1. Number of high-school students with basic digital skills



Source: Ionescu, 2020

Figure 2. Number of high-school students with above-basic digital skills



Source: Ionescu, 2020

Digitalization provides many new opportunities, but also generates a series of significant social challenges. Digital technologies can increase both creativity and flexibility, and improve the overall efficiency and learning results. Nevertheless, phenomena such as disinformation present a danger to democratic and open societies, and consequently further isolate vulnerable groups. Technology integration for educational purposes has fallen behind in all EU member states. There are still disparities in what concerns the supply of infrastructure and digital gear, as well as expertise available in the fields concerned. It is instrumental for citizens to be appropriately prepared to future-proof an interconnected and globalized world, through investments in necessary skills and abilities to prosper and take an active part in the digital era society (Joița, 2000).

Digital technology is a key feature of our collective effort to fight the virus and support the novel ways of working and living over this exceptional period. The European Commission has worked constantly for coordinating, completing, and creating measures addressing all aspects of the coronavirus pandemic, and here digital tools, mass media, and telecommunications have played a crucial role. Digital technologies have never proved more important than at this moment. Ensuring Europe's infrastructure, connectivity, and the necessary regulations in place to address the challenges posed by the pandemic and keep people active, motivated, and safe via online solutions was our mission. With the COVID-19 pandemic sweeping across the world, and the safety measures being taken at a national level, there were registered major disruptions of the education and training system in terms of mobility for students, teachers, and educators all over the European Union. Fortunately, there is a diverse array of online and offline instruments that can be used (Andrei and Abăcioaie, 2020):

- connecting educators and students when they are physically in different places
- accessing information and digital platforms from home or educational institution that are not commonly available
- supporting the continuing professional development of teachers in a flexible way.

Online events, such as conferences, facilitate the transfer of information in real-time and provide synchronous learning for students. Here are some of the most popular applications: Zoom, Microsoft Teams, GoogleMeet, Webex, Twinspace.

To ensure the continuity of education and training activities, there are also available online teaching materials and platforms. Just to name a few:

- School Education Gateway - this online catalog, available in 23 European languages, comprises teaching materials and continuing education courses for teachers and other interested parties from the education system across Europe.
- eTwinning - this collaborative platform, available in 30 languages, allows teachers to exchange resources, info, communicate, take professional training courses, and build projects together.

- Salto-Youth - online catalog providing online training instruments that promote and support activities addressing the youth.
- Virtual Walls - apps for online meetings that facilitate collaboration by providing virtual space for sharing bodies of texts, images, videos, and websites. Among the most used are Padlet and Lino.
- Digital Editors - online platforms hosting publications such as journals, teaching aids, and materials, books, etc. To name just a few: Issuu, Calameo, and Smore.
- Learningapps - platform providing models of applications and the possibility for creating content.
- Erasmus+ Virtual Exchange - explores the innovative opportunities of virtual exchanges for the young people aged 18-30 residing in Europe and the SouthernMediterranean.
- Eu Code Week - local initiative supported by the European Commission. It aims to boost digital skills such as programming, and computational thinking by embracing an engaging and funny way.
- Digital tools in secondary and high schools, educational games - instruments facilitating the synchronous work during online conferences. Worldwall and Learningapps are among the recommended instruments.

To support the development of a digital education ecosystem, it is necessary to have the appropriate infrastructure, connectivity means, and digital gear for effective planning and development of the digital skills, including updated organizational skills for digitally competent teachers, high-quality teaching staff, and easy-to-use instruments as well as safe platforms in terms of GDPR policies and other ethical issues

2. Results and discussion

2.1. Improving distance learning via digital tools in a secondary school from Iași city

The teaching activity through information technologies is defined by the Order no. 5545/ September 10, 2020, for establishing the customized methodology as “an organizational form of the teaching process that replaces the classical teaching-learning-assessing classes, requiring the physical presence of the students in the classroom, with online teaching and individual-study activities. The activity is managed by teachers, with the support of internet and information technologies, to ensure the continuity of the teaching process”¹⁴. The virtual education environment comprises all digital and communication means that can provide the effective functioning of an educational process through specific activities. There is a wide range of means, yet the following stand out:

¹⁴ Ordin Nr. 5545(2020) pentru aprobarea Metodologiei-cadru privind desfășurarea activităților didactice prin intermediul tehnologiei și al internetului, precum și pentru prelucrarea datelor cu caracter personal.

- digital educational platforms or platforms designed to create and share open-source educational materials
- apps built to communicate via information technologies and available for a diverse array of devices, such as PCs, laptops, tablets, smartphones, that can be used for holding video conferences, online meetings, and classes
- digital information resources (lessons, tests, tutorials, etc.) are available on digital education platforms and other resources such as bodies of text, images, models, and others supporting the educational process.

Regarding the ways of ensuring the security of the virtual educational environment, they are in agreement with the EU legislation on cybersecurity and GDPR. The schools are required to follow a few steps prior to conducting online classes. Thus, it will be assessed the capacity of carrying out online teaching activities based on information technologies, to estimate the need for information resources and qualified human resources. Following this stage, solutions are to be identified in close partnership with public authorities and institutions, NGOs, and economic actors, to provide all the necessary resources for conducting teaching activities in schools. The educational establishment provides training resources for teachers, namely support courses such as specific apps and platforms used for holding online classes, video seminars, and tutorials (Suslenco and Doncean, 2021). At the same time, statistical data on students' access to technological means (internet and phone services, public broadcasting, platforms, and necessary resources for conducting the support activities of the online learning process) will be collected to effectively implement the identified solutions.

By analyzing the organization of distance learning and digital tools of e-learning, it has been proved that the traditional education system should be radically altered, if not totally reset, as it is commonly rigid (when teachers impose learning on their students in an authoritarian way), and mostly focused on the cognitive domain and less on the affective and psychomotor aspects (Covey, 2018). Basically, the value and attitude formation are not properly valued, and this concept lies at the core of the new European educational paradigm.

In the near future, the key objective of education relies heavily on the features of personalized or individual learning, planned within the educational establishment and also inside the community or family (Suslenco, 2021).

To achieve effective personalized learning, it is necessary to make the best use of a student's possibilities, living and learning conditions, community resources, and mass media means, and employ distance e-learning technologies as well, since they present an opportunity under special or unpredictable circumstances (Keller, 2014). As regards personalized learning, students do not focus on the content alone (its role does not cover a significant amount), but rather on the analysis of learning strategies and modalities, and on the relationships created between participants. Under the circumstances, the role played and place occupied by the analysis of the learning process will be of the utmost importance for securing the quality of the education

system. Most discussions and reflections of the educational actors will be organized around the following questions:

- What have we learned?
- What products have we created?
- How have we felt?
- What has gone well?
- What has not been clear?
- How can we overcome certain difficult issues?
- Which methods have we used in the teaching-learning process?
- Who have we best interacted with when completing tasks?
- Which sources have been used?
- How do you value your own activity?
- To what extent are we open to helping people with special needs?

The content of the Romanian tasks consisted of reading short texts, and transcribing or copying a piece of text. The Math tasks involved solving exercises and problems in a moderate number. From what teachers stated, they upload materials on one of the platforms selected and known by students on a daily basis (mainly audio or video files, working sheets), and the main aim was to complete the tasks with the help of the recorded indications. At the beginning of the school day, students and parents alike were suggested a schedule to agree upon, providing the links for each subject or work requirement. Each child was given certain working hours and assisted by his/ her parents, was invited to send the completed task to the teachers. Commonly, teachers would check and correct the papers received and send back individual feedback. Some teachers would communicate online with all their students every school day, at different intervals depending on the age of the class. Teachers have mentioned that, among the learning abilities, learning how to write correctly takes the longest. Accordingly, extra writing homework (usually done in an informal context) has proved one of the most useful activities at the primary and secondary levels.

2.2. Quantitative research survey

In order to develop this research, we employed the following methods: induction, deduction, abduction, analysis, synthesis, quantitative research, scientific abstraction. Within this context, a quantitative research was performed using investigation, the research tool being the survey. A survey run in a school from Iași City, counting 60 students from different grades in secondary school, has obtained the following results:

Preferences revealed by students for performing distance learning activities in tandem with their teachers:

- phone (light blue) – 49%

- Skype (Brown) – 20%
- online apps such as Classroom, Zoom (yellow, gray) – 45%
- Viber, Messenger (blue, green) – 28%
- others – 4%.

Regarding the activities implied by distance learning requiring students' involvement, they are as follows:

- individual tasks –76%
- tests –70%
- online classes – 40%
- guided reading lessons – 24%
- educational projects – 20%
- conducted discussions – 18%
- small debates – 10%
- e-portfolios – 10%
- others – 40%.

The answers given by students to whether the online interaction with teachers was necessary during the isolation period:

- Yes – 86.5%
- No – 9%
- Not necessary – 4.5%.

In regards to what extent students think they understood the tasks assigned for individual work, their answers are as follows:

- very much – 22.7%
- much – 38.8%
- moderately – 27.9%
- little – 7.1%
- not at all –3.5%.

Students worked for completing the school tasks during the day

- from one hour –7%
- for 2 hours – 28%
- for 3 hours – 19%
- for over 4 hours –17%.

Most students mentioned that the number of assignments was excessive, and they could not complete them.

In regard to organizing the distance learning process

- most students declared they were satisfied with the work of their teachers – 56%
- students who expressed their gratitude – 45%

However, concrete suggestions for improving distance learning were also registered, such as assigning less homework, having more interactive lessons, better-explained tasks and homework, a more stable schedule, selection of a single platform dedicated to online learning, better-trained teachers to manage online teaching and use of platforms, more objectivity in assessing students' answers.

Concerning the organizational level of distance learning, the students graded it as:

- very good – 22%
- good – 55%
- poor – 20%
- very poor – 3%.

Students' opinions about how their parents understood and got involved in the learning distance activities. The answers that stood out are the following:

- very good – 15%
- good – 45%
- moderate – 33%
- no particular opinion – 7%.

So, from the student's perspective, their parents were largely satisfied with the way distance learning was organized. This is also explained by the fact that, as many students declared, many parents got involved occasionally, while others did not get involved at all.

Students' opinions about their parents' attitude toward distance learning:

- 30% accept that their children are busy doing something useful
- 25% get involved regularly and provide the necessary support to their children
- 20% do homework with their children
- 15% do not see the use of learning during the isolation period, considered a school break
- 10% are not interested.

Students mentioned that after the first 2 weeks of distance learning, the organization of the education process made progress, such as:

- a) the number of students engaged in online learning increased
- b) more teachers started using the dedicated online platforms
- c) homework decreased in number, and, in some cases, they were cancelled
- d) a stable schedule was made
- e) the time spent in front of the digital devices was reduced, and the focus was on solving creative tasks, using handbooks and other learning materials

The qualitative analysis of the questionnaire has aimed at identifying the issues faced by the educational actors and clarifying the positive features registered during the distance online learning period.

Conclusions and recommendations

Under the circumstances generated by the epidemic crisis worldwide, all social categories have tried to implement the safety and prevention measures imposed by the central authorities. The education system was one of the most affected systems. As the teachers' activity was commonly held in the classroom, and the teaching activity was conducted face-to-face, there was direct teacher-student communication. Accordingly, due to the exceptional circumstances, a novel

approach was required, and the physical lessons were replaced by online classes supported by digital platforms. This proved a real challenge for educators and students, and their parents as well. The digital skills of teachers are both a pressing need and job requirement in the current education system. In this sense, user guides for different learning apps were made in Iași county since the early days of online teaching, to support online teaching and learning and assist both teachers and students. There is a real interest in distance learning, proved by the great number of students who completed the questionnaire since this is a rather novel and less familiar way of teaching for the educational actors. Students have shown a real interest in achieving academic success and willingness to modernize and improve distance learning, and also have come up with suggestions for reforming the overall education system. In the case of some students, the remote interaction has come as a matter of course, since they used it previously for online communication, shopping, or when using other digital tools.

In the end, we would like to offer a few recommendations to improve distance learning activities and better manage the process in terms of methods and emotional impact:

- the methodology for organizing distance learning should comprise more tangible information about the tasks and responsibilities of teachers and students under crisis situations, such as regulating the time spent in front of digital devices and TV, how to combine synchronous and asynchronous lessons, how to make tutorials and other video educational programs for various learning and inclusive circumstances, how to schedule activities, etc.
- the isolation period can cause depression, stress, and give rise to tensions among students and teachers alike, that is why communication activities are more than welcome. They should focus on various life subjects, listening to the problems faced by children, not necessarily complaints about school hours as much as issues related to general life aspects
- There is already a wide range of digital tools and dedicated platforms for online learning and teaching, and, accordingly, it is essential to start with more familiar, friendly activities that are accessible to both students and teachers
- calling attention to economically disadvantaged children who do not have equal learning conditions, and, accordingly, paying them more attention and providing them more support from both teachers and schoolmates.

To conclude, the intercultural dimension of a quality educational process plays a major part in modern society, through its unique capacity to enrich our general system of values and its ability to effectively share these values with all around us. This phenomenon will have a logically necessary consequence, namely, it will boost the forthcoming development of relationships based on tolerance, mutual understanding, and flexibility among the citizens of this world.

In conclusion, the intercultural dimension of a quality educational process plays a particularly important role in modern society, through its ability to creatively

enrich the general system of values, but also through the ability to share these values with everyone around. This phenomenon will have a logical and necessary consequence: the development of relations based on tolerance, understanding and flexibility among the citizens of today's world.

The results of this study show that Romanian students have confidence in their ability to develop within the online learning system. However, their optimism may be the result of an erroneous self-assessment.

This study complements the literature in the field through the perceptions of a group of Romanian students regarding the implementation of online education during the COVID-19 pandemic.

The coronavirus pandemic has brought many changes, pushing us to find new ways of working, interacting, and living on the whole. It raised questions about how our society is organized and about where we wish and should invest in the future. It tested our strengths and highlighted our weaknesses. We had to cope with new challenges, and finding a cure was of the utmost importance.

The results represent a starting point in devising a future strategy in education at the national and institutional level because there may be a hybrid system in the future and the return to the traditional education system may not happen.

References

- Andrei, A. and Abăcioaie, D. (2020), *Ghidul directorului de școală*, Chișinău: Editura Tehnica Info.
- Bîrzea, C. (1995), *Arta și știința educației*, Editura Didactică și Pedagogică București.
- Blake, R. and Mournon, L.S. (1982), A comparative analysis of situationalism and 9,9 management by principle, *Organizational Dynamics*, 10(4), pp. 20-43.
- Buzărnescu, Șt. (1993), *Sociologia organizațională și a conducerii*, Editura Universității Timișoara.
- Covey, S.R. (2018), *Cele 7 trepte ale persoanelor eficiente*, Editura Alfa București.
- Crudu, V. and Cara, A. (2016), *Standarde de competență profesională ale cadrelor didactice din învățământul general*, Chișinău.
- Ionescu, C. (2020), *Educația românească, în faza când e obligată să fie "regândită pentru era digitală"*, Edupedu, 3 May (retrieved from <https://www.edupedu.ro/educatia-romaneasca-in-faza-cand-e-obligata-sa-fie-regandita-pentru-era-digitala-ce-spune-un-studiu-al-parlamentului-european/>).
- Joița, E. (2000), *Managementul educațional. Profesorul manager. Roluri și metodologie*, Editura Polirom, Iași.
- Keller, J. (2014), *Pregătit pentru succes*. Editura Cartea Veche, București.
- Neculau, A. (1996), O perspectivă psihologică asupra schimbării in: Neculau A. (ed.) *Psihologia socială. Aspecte contemporane*, Editura Polirom Iași, pp. 223-247.

- Noveanu, E. and Potolea, D. (2008), *Informatizarea Sistemului de Învățământ: Programul S.E.I., Raport de cercetare evaluativă - EVAL SEI 2008*, București, Editura Agata, (retrieved from https://www.elearning.ro/resurse/EvalSEI_raport_2008.pdf.)
- Pânișoară, I.O. and Pânișoară, G. (2005), *Motivarea eficientă. Ghid practic*, Editura Polirom, Iași.
- Suslenco, A. (2021), Elaboration of the sustainable university model and its application in the higher education system of the Republic of Moldova in: *Priority areas for development of scientific research: domestic and foreign experience*, Riga, Publishing House Baltija Publishing, pp. 235-264.
- Suslenco, A. and Doncean, M. (2021), Assessing the process of human potential development in higher education within the context of achieving sustainability, *Journal of Public Administration, Finance and Law*, 19, pp. 203-220.