

Education During the Covid-19 Pandemic. The Case of Romania's Political-Administrative Decisions on Education and Health

RADU SĂGEATĂ*, NICOLAE GEANTĂ**, NICOLETA DAMIAN* & MIHAELA PERSU*

*Institute of Geography, Romanian Academy, 12, D. Racoviță Street, RO-023993, Bucharest, Romania. Email: rsageata@gmail.com

**‘Constantin Istrati’ Technological High School, 91 Griviței Street, RO-105600, Câmpina, Romania

This article highlights the problems faced by teachers, students, parents and authorities in Romania during the Coronavirus pandemic, as well as their management in the general context of the health crisis unfolding in this country. The documentation regarding Romania was compiled mainly on the basis of official reports and information taken from the media, due to the novelty of the subject for the case study presented. They were joined by theoretical-methodological works on the general epidemiological context and by studies on the particularities of the Romanian education system, which helped us to outline the theoretical-methodological background of the research. The authors have tried to highlight good practices, but also the errors that led to an increase in the number of cases and the imposition of restrictions, during the first four waves of the pandemic, with a major impact on educational activities in Romania. The main restrictions and advantages of online education, a first for the Romanian education system, are also highlighted.

Introduction

The crisis caused by the worldwide new coronavirus pandemic created new challenges, unprecedented in the past hundred years, to manage economies and societies in special conditions of health protection. Among these challenges, an

important role is played by the management of the educational process, which traditionally involves communities of children and young people who have to carry out their activities while practising the best possible physical distancing, as a basic premise for limiting the spread of the virus.

The school network in Romania is largely the offshoot of its pre-1990 version, characterized by crowded classrooms, especially in urban areas, with an average of 30 to 40 students per class. Additionally, functional illiteracy makes Romania rank among the bottom in the European Union, since 42% of Romanian students graduating from high school fail to use the information acquired in school to solve daily challenges.

Given the situation, this study aims to highlight the impact that the pandemic crisis has had on the Romanian education system, in the context of the general evolution of the Coronavirus epidemic in this country, highlighting good practices, as well as the errors made by central and local authorities that have perpetuated the proliferation of the virus, leading to a large number of cases and deaths.

The research is aimed at correlating the political-administrative decisions regarding the educational activity in relation to the specifics of the pandemic evolution during a representative two-year timeline, starting in March 2020, when the first coronavirus case appeared in Romania and when the state of emergency came into effect, until the end of 2021, that is, during the first four pandemic waves.

The study contributes to expanding the knowledge of the particularities of the management of educational activities specific to a period of health crisis, in a country where both the health and education systems are still tackling the shortcomings amassed during the communist period. In this regard, research prior to the period of the new coronavirus pandemic aimed at comparative aspects of the management of educational activities at the European level (Jallade 1992), as well as some aspects regarding intercultural education (Faas *et al.* 2013) or disadvantaged communities (Lauritzen and Nodeland, 2018) were used for documentation purposes. They were measured against research on the changes that the Covid-19 pandemic triggered for educational activities both at the European level (Colao *et al.* 2020) and in Romania (Edelhauser and Lupu-Dima 2020, 2021; Roman and Plopeanu 2021; Marin 2022).

Education in Post-Communist Romania. Brief Considerations

The political-ideological dissonance that was so characteristic of Romanian society in the 1990s was reflected in the education system through a large number of often contradictory reforms, against the background of a large number of ministers spearheading the Ministry of Education. Thus, from December 1990 until the end of 2022, this office was held by 28 people^a from five different political parties, which have lent their specific political influences to the decision-making process.

The state monopoly on education was dissolved, academic freedom and university autonomy were reinstated, the number of universities increased rapidly (most of the newly-established ones leaning on private capital), the number of students and doctoral students increased considerably. On the other hand, the quality of higher education fell, a fact reflected in the position of prestigious Romanian universities in European and global rankings. In the pre-university sector, a series of ideological and disciplinary constraints were repealed, primarily regarding the imposition of a single textbook at the national level/discipline/year, or the wearing of a standardised school uniform, also at the national level. These changes created the conditions, on the one hand, for the abolition of the entrance exam in university education and, on the other hand, for the development of a serious business endeavour around private tutoring and textbook publishing. At the same time, proper behaviour in schools and the authority of teachers have decreased considerably, while the gap between students from families with a good financial situation and those from disadvantaged backgrounds has increased, despite the legislative provisions that guaranteed the equal rights of all Romanian citizens to education, regardless of gender, race, nationality, political, cultural, or religious affiliation, or social status (Education Acts of 1995 and 2011; Romanian Parliament 1995, 2011) (Marga 2002; Pierson and Odsliv 2012). New subjects were introduced in the school curriculum with the aim of centring the educational process on the concept of sustainable development (Suduc *et al.* 2014) and around European and international practices, although the educational infrastructure and the mentality of many teachers all too often remained anchored onto the communist past (Damian *et al.* 2019).

Another legislative concern zeroed in on increasing the degree of inclusion in the educational process of ethnic and disadvantaged communities, since both cultural and linguistic barriers, as well as social barriers, can become factors of segregation in schools. However, the deepening of the social gap, poverty and, in some cases, certain cultural and religious particularities increasingly influence equal opportunities in the educational field (Crețan and Turnock 2008; Crețan *et al.* 2021). The broadening of the educational framework through outdoor activities with students, fields trips, visits to museums and other cultural and heritage landmarks was also taken into consideration (Marinescu 2015; Light *et al.* 2019, 2021).

Both during the communist period and post-1989, the universities in Romania were real hubs for attracting students both from Romania and from abroad (the cases of the universities of Bucharest, Cluj-Napoca, Iași, Târgu Mureș, and more recently of Timișoara, Constanța, Craiova, Suceava etc.) (O'Brien *et al.* 2022). Additionally, popularly-acknowledged schools in big cities favoured the migration of the school population at county and even regional level (Râmpu 2021). Higher education in Romania was readjusted to the Bologna system (a three-year Bachelor's degree and a two-year Master's degree), and in secondary schools the number of study hours was cut down. The demographic crisis, the increasingly low birth rate, combined with emigration flows made it so that the number of school-age children

dropped significantly, while many teachers were forced to leave the education system. Some schools were even closed down, especially in rural areas.

Worth mentioning is also the importance of education in the process of occupational diversification and of attracting foreign direct investments in the transitional economic context of 1990–2010s Romania, as the social risk increased due to the restructuring of the mining industry and of various former large industrial units (Crețan *et al.* 2005).

After the accession to the European Union (1 January 2007), Romania adapted its educational policies to EU standards (Pierson and Odsliiv 2012; Marin 2022), compiling a curriculum similar to the other member states. These changes were included in the National Education Law of 5 January 2011.

The undifferentiated imposition of online education throughout Romania, especially in the first stages of the pandemic, without having conducted a proper analysis of the local health and educational specificities, or the status of the online-capable equipment, significantly hindered the educational process, especially in disadvantaged communities (Ionescu *et al.* 2020; Marin 2022).

Theoretical Background, Literature and Methodology

This article focuses its scientific approach on the area of interference between two priority social fields for any state, that is, education and health, highlighting and analysing the political-administrative decisions regarding education in the context of a major health crisis. Although the coronavirus pandemic has been widely addressed in the international scientific literature, studies that focus on such correlations are few and far between, and in Romanian literature they are scarce. The study on the impact of the Covid-19 pandemic on the Polish education system and the challenges related to distance learning in this country can be considered representative in this regard (Hibszter and Tracz 2021). Onyema *et al.* (2020) analyse the impact of the coronavirus pandemic on the education systems in some non-European states (Nigeria, Bangladesh, India and Saudi Arabia) by means of online surveys addressed to the subjects involved (teachers, students, parents). Similar studies are devoted to the impact of the Covid-19 pandemic in China (Sun *et al.* 2020), the Arab states (Al-Lily *et al.*, 2020) or the USA (Iboi *et al.* 2021).

Complementary works were analysed, which tackle, on the one hand, the social impact of the coronavirus pandemic and, on the other, the particularities of the Romanian education system. As part of the first category, we have analysed the effects on human mobility under pandemic control, as well as the conclusions drawn by Kluge *et al.* (2020) regarding the health of refugees and migrants in the context of the Covid-19 pandemic. The social impact of the pandemic is amply highlighted in the papers edited by Deborah and Karen (2021), and Jan-Nederveen and Haeram (2021), the latter focusing on governance.

Among the studies that analyse the spatial and temporal dynamics of the pandemic, worth mentioning are those developed by Uzzoli *et al.* (2021) for

Hungary, Parysek and Mierzejewska (2021) for Poland, or by Mocanu *et al.* (2021) and Mitrică *et al.* (2021) for Romania.

The psychological impact of the pandemic and the types of responses to pandemic stress have been extensively analysed by Scrima *et al.* (2021), while studies regarding Romania were performed by Stoica and Umbreş (2020), Buturoiu *et al.* (2021), and by Doiciar and Creţan (2021). Worth mentioning are also the studies by Popescu (2020) on the geopolitical and geoeconomic impact of the coronavirus pandemic, as well as those developed by Creţan and Light (2020) on the geopolitical impact of transnational work and of the Roma migration during the pandemic, and Hayat *et al.* (2022) on professional reconversion as a consequence of the coronavirus pandemic.

Regarding the structure and particularities of the education systems, in particular those of the Romanian one, we believe Bagoly-Simó's (2018) and Cucos's (2006) studies to be representative for identity and territoriality in educational geography, for the identity of education in Romania, and for computerization in education, as well as for zoning on the Romanian education system. The correlation between the two aspects, namely the specifics related to the impact of the SARS-CoV-2 pandemic at the level of the Romanian education system and the political-administrative decisions made in this respect, was performed on the background of the general evolution of the pandemic in the country. Thus, the impact that moving educational activities to the online system had on the education process and on the evolution of the pandemic in Romania has been extensively analysed in works such as those of Ionescu *et al.* (2020), Roman and Ploeanu (2021), Edelhauser, Lupu-Dima (2020, 2021) and Săgeată (2022), while Antonescu (2021) analyses the whole of urban policies in Romania in the context of the coronavirus pandemic.

Due to the fact that it continues to be a subject insufficiently studied and analysed in scientific literature, especially in view of the particularities of the education system in the former communist bloc and, in particular, in Romania, the methodological approach focused on highlighting the challenges and the types of responses provided. In this sense, the analysis took into account the legislative framework, the good and bad practices exhibited throughout the period under analysis, the delays and the bureaucratic and decisional inconsistency, as the authors tried to offer practical, alternative solutions to the reported deficiencies.

Theoretical bibliographic resources were processed, together with official statistical data and especially the flow of information from the media, the opinions of the main players making the political-administrative decisions at the time, as well as the assessments of various specialists in education and public health, based on which the authors outlined their own vision on the causes, dynamics and socio-economic consequences of the analysed phenomena.

For the preparation of the paper, methods were used regarding the analysis of the content of the political and administrative documents issued during the state of emergency and the state of alert (March 2020 – March 2022), the analysis of the flow of information from the mass media, as well as the analysis of statistical data regarding the demographic impact and the social impact of the coronavirus pandemic.

The data used were provided by the Romanian Ministry of Internal Affairs, by means of the Department for Emergency Situations, by the Ministry of Health, by means of the National Institute for Public Health, and by the Ministry of Education and, for comparison, international statistics provided by www.worldometers.info (Worldometers 2022) were also used.

Results

The Onset of the SARS-CoV-2 Pandemic and the Transition of Teaching Activities into the Online Environment – a First for the Romanian Education System

In Romania, the first new coronavirus infection case was confirmed on 26 February 2020; on 11 March, when there were about 100 cases nationwide, school was suspended, initially for a period of two weeks, with the possibility of extending this decision depending on the epidemiological situation. On 16 March 2020, the *state of emergency* was instituted, along with measures unencountered in Romania since the Second World War: considerable restrictions on travel, on land and air transport, quarantine measures for Romanian citizens coming from abroad, a ban on public events in closed spaces, the extension of school closures (Mitrică *et al.*, 2021).

In this context, the online education system was introduced, for the first time in Romania, through Government Order,^b as a compromise solution, in order to avoid cancelling the entire school year. Until then, there was no reference in Romanian legislation^c to online education, because in recent decades Romanian society had not faced a pandemic of this magnitude. Therefore, both teachers and students had to adapt, to the best of their abilities, both in terms of knowledge, and access to information technology.

After the abrogation of the state of emergency and its replacement with the *state of alert* (15 May 2020) the premises for the physical return to classes were in place, while also introducing a reduced timeslot for classes, social distancing, and strict health protection rules; this would only be the case of students in their last year of school, who were to sit their graduation exams.

The summer period, which coincided with the school holidays, brought a gradual relaxation of the restrictions at the same time as crowds gathered in resorts and tourist areas (O'Brien *et al.*, 2022). Given the situation, the number of cases was on the rise, foreshadowing the second wave of the pandemic.

Resuming Teaching Activities while Dealing with the Health Crisis

In this epidemiological context, a new school year began on 14 September 2020, after a pandemic break of about six months, because for many students the online classes which took place between April and June 2020 either could not be carried out due to the lack of digital infrastructure or the necessary training, or were carried out

superficially, in the absence of clear regulations in this regard. However, the three months of online education at the end of the previous school year were a good opportunity to identify deficiencies in the education system, as a premise for correcting them during the summer holidays in order to adapt teaching activities to new challenges due to the pandemic. They were based on three major coordinates: (1) ensuring the technical infrastructure and qualified personnel for the eventuality of online teaching, (2) ensuring the necessary conditions for the proper physical distancing between students in the classrooms, and (3) ensuring the necessary support so that parents could supervise their minor children during their at-home school activities.

Regarding the technical infrastructure necessary for the online education process, about three million euros of government funding were allocated for the purchase of electronic devices with internet connectivity necessary to equip the public K-12 teaching units^d in order to facilitate online teaching activities for students enrolled in these educational units (Romanian Government, 2021). Teacher training courses for online teaching had been organized by several licensed companies in the field, but the costs were to be borne by those interested in taking them. As no unitary platform for online teaching was chosen at the national level, in order not to create a monopoly, most teachers unfamiliar with online teaching preferred to learn on their own or hoped to continue traditional teaching throughout the pandemic. Romania has a rather obsolete qualified staff in the state K-12 education system: only 21.69% of teachers are between 18 and 34 years of age, below the EU average, as young graduates lean more towards non-teaching careers, due to the low pay and the lack of jobs caused by low birth rates and increased emigration (Pierson and Odsliiv 2012; Râmpu 2021).

Ensuring the necessary conditions for proper physical distancing between students in the classrooms has proven to be a difficult problem to tackle. The school infrastructure in Romania is mostly inherited from the pre-1990s, with crowded classes of 30–40 students, especially in big cities. The sanitary norms enforced during the pandemic provided for a minimum distance between students of one metre within the classroom with the obligation to wear a sanitary mask, and 1.5 metres outdoors when the mask is not worn. For most classes of more than 20 students, however, this distance became an impossibility, with school furniture forcing two or three students to sit on benches less than one metre away from each other. A compromise solution was the setting up of plexiglass partition panels, which, in addition to being translucent and preventing good visibility, were only installed directly onto the desks, which became ineffective when the student was leaning on the backrest of the chair. Therefore, the alternative physical presence of students in these classes would have been a requirement, at the same time as carrying out online learning. In this situation it was necessary either to supplement the staff or to equip the classrooms with the necessary technical infrastructure and to train the staff to teach both in-person and online, a process that proved difficult for multiple reasons. First of all, the issue of confidentiality of the teaching act was raised, as some teachers refused to record their class activity. To resolve such situations, the Ministry of Education sought legal solutions to force teachers to teach online under the threat of financial and disciplinary sanctions.

Some older teachers who are unfamiliar with working online preferred to retire, arguing that they cannot manage the educational process and the strict compliance with health protection rules at the same time, while thousands of positions were filled by unqualified teachers (Edelhauser and Lupu-Dima 2020).

The decision on how to start the school year was to be decentralized, depending on the epidemiological situation in each school. The Ministry of Education and Health thus developed three scenarios according to which schools would operate: *the green scenario* – less than 1‰ rate of infection: all students attend class in person; *the yellow scenario* – a rate of infection between 1–3‰: preschoolers, students from 0–4th forms and those in their final years would have priority in going to school, as they ought to prepare for their final exams. However, this ‘priority’ has been understood and applied differently by the management of each school, so that some schools started the year with all these students in class regardless of their number, while others found ways to alternate in-person classes with online ones, thus avoiding overcrowding their educational institutions; *the red scenario* – a rate of infection over 3‰: schools would be physically closed and classes would be held entirely online.

Another problem faced by the Romanian education system regarding online teaching activities was the lack of legislative facilities for parents to supervise young students at home during the online school activities. In this regard, at the request of parents’ associations, a legislative proposal was initiated by which preschoolers and students up to the fourth grade would receive educational vouchers, non-transferable, redeemed by schools, through which the state ensured the payment for afterschool services. However, in order to avoid this budgetary effort, the option of *all students* physically attending pre-school and primary education was allowed for in the yellow scenario since, according to WHO statistics, they were the least affected by the infection with the new virus. But the fact that they were asymptomatic or developed mild symptoms was precisely what made them effective carriers of the virus to other family members they came in contact with, who could develop severe forms of the disease. This was another example of the dysfunctional decision factors that contributed to the spread of the infection in the first month after the start of the school year (Ionescu *et al.* 2020).

The rapid increase in the number of cases (by 187% in just the first 10 days of the new school year) has led the National Council of Students to ask the authorities to generalize online education at the national level, by switching to the red scenario. On the other hand, the central authorities (government and presidency) encouraged parents to send their children to school. Their inconsistency was obvious: if, on 11 March, schools were closed upon reaching a mere 25 cases nationwide, seven months later, when 3000 new infections per day was the norm, they remained open, despite the fact that the number of infections among students was growing at an alarming rate. Many of them, asymptomatic, were carriers of the virus.

Added to this was the economic and social impact that closing down schools would have had: many parents who had no one to care for their children during the day, when schools were closed, or who couldn’t afford hiring a nanny or setting up an afterschool contract, would have had to quit their jobs. In addition, compared with

the situation in March, the population's welcoming of restrictions had considerably decreased, as the world had become accustomed to living in a pandemic. On the other hand, the President's decision was in line with the European trend, where despite the alarming increase in the number of infections, most states were trying to keep schools open. In the third week of school, there was a 22% increase in the number of cases in children and a twofold rise in the number of outbreaks in schools. Under these circumstances, many schools turned into real 'epidemiological bombs', despite the prevention measures taken, which were deemed among the toughest in Europe, because the school infrastructure in Romania cannot offer, in most cases, sufficient physical distancing possibilities.

Another issue was banning parents from entering schools. An apparently good measure, it had the reverse effect of crowding parents in the common areas within the school property where they were allowed to enter, in most cases without observing the health protection and physical distancing rules. It was only in October, when the number of infections soared abruptly, that it became mandatory to wear a protective mask within a radius of 100 metres around the schools, following a decision made by various local authorities. On the other hand, as the number of cases rose and schools went into the red scenario, online education was showing its limitations more and more, both in terms of infrastructure coverage and technical constraints, that is, operating at appropriate parameters providing computer security. In such a situation, the teacher had a threefold role: as a teacher, as a manager of health protection measures, and as a network administrator. In the latter case their knowledge was often lacking. This is why many teachers characterized the 2020–2021 school year as being marked by continuous improvisation, caused by the alternation of physical and online teaching, by daily challenges they had never previously encountered, by the lack of infrastructure for online teaching, and by technical malfunctions of internet networks, but also by pride and weakness which, together with the online system, could be more quickly 'uncovered' by students, as well as by their parents. Authorities were accused of a lack of involvement by shifting responsibilities from the central to the local level and by sharing the same tasks so that, in the end, no one would have to take action (Roman and Ploeanu 2021).

On the other hand, online teaching, as hastily improvised as it was, led to a discrepancy between children with digital resources and those from disadvantaged communities, who couldn't afford these resources. All this had the effect of developing the 'industry' of private tutoring, accessible only to students whose parents had sufficient funds.

The Renewed Generalization of the Online Scenario. The Second Wave of the Pandemic

The rapid increase in the number of daily cases and the incidence rate of infections brought with them new restrictions, including the shift to the online teaching scenario of all educational units in Romania.⁶ However, the generalization of the red scenario at national level, without taking into account the local epidemiological

particularities, was risky. If in urban areas, especially in large cities, online education was perfectly justified owing to the high infection rate, the large number of students in any given class, and the relatively adequate technical infrastructure, in rural areas, where the infection rate was lower, as was the number of children in a classroom, due to declining birth rates and the massive migration of young families, a different approach would have been required, especially since many children do not have easy access to the internet in these areas, thus being ousted from the educational process. The dropout rate was significantly higher in such localities, where the educational activities could have continued in the traditional way, with the observance of the corresponding sanitary rules. In addition, despite the efforts of the authorities to purchase tablets to help in the educational process, many students from disadvantaged areas and backgrounds did not have access to online education, and many teachers, especially those more advanced in age, refused or failed to acquire the skills necessary for online teaching (Edelhause, and Lupu-Dima 2021).

At the same time, on 6 December, parliamentary elections took place: as a result, a new government was invested in the last days of 2020. A new minister was to lead the Ministry of Education, and he set up new priorities; among them was the reopening of schools and enforcing in-person attendance.

A Prelude for the Third Wave of the Pandemic in Romania

In the first days of 2021, school activities resumed online yet again. However, as a result of the restrictive measures enforced since the previous October, the epidemiological trend had radically changed: official statistics showed a decrease in the daily number of infections and in the rate per thousand inhabitants.

In this scenario, the pressure for the reopening of schools in physical format increased; given that the online education system had led to a rise in the number of children battling emotional issues, and in localities where there were no infections, courses could be attended in the traditional system. On the other hand, according to the data offered in January 2021 by the new governance of the Ministry of Education, 65,000 students were at risk of not achieving their final grades for the first semester, and 280,000 did not have access to online education. All this added to the fact that in April 2020 only 220,000 students did not have access to online education, and 230,000 tablets had been allocated to them by the Ministry of Education and the local authorities. A simple calculation indicates that the purchased tablets should have been enough, with 10,000 units to spare; the number of students without access to online education should in no way have increased by 60,000. Therefore, the tablets were either not distributed correctly to the students who needed them, or the reports were inaccurate (Marin, 2022).

At the other end of the spectrum, there were also opinions from medical representatives that the reopening of schools in physical format at the beginning of the second semester would be a detrimental decision, favouring the increase in Covid cases.

The new Minister of Education expressed his desire to resume classes in the traditional format starting the second semester of the 2020–2021 school year, subject to epidemiological developments. In this sense, three other scenarios were developed for the resumption of teaching activities in the traditional format: *the green scenario*: a rate of under 1.5‰ – all schools would be physically reopened and children would go to school. In the event of a teacher's becoming sick, even in the green scenario, the class in question would switch to online learning. *The yellow scenario*: a rate between 1.5‰ and 3‰ – kindergarten children, primary school children and students in their final years would start school in the traditional style (grades 8th, 12th and 13th), while the other students would continue online. *The red scenario*: a rate between 3‰ and 6‰ – only kindergarten and primary school children would start school activities in the traditional format, while all the other students would remain online.

The limit for the infection rate starting from which schools would be completely closed down, and all students would switch to online learning, was raised to 6‰, a threshold that was also erroneously thought to trigger the lockdown of the locality in question. In Romania, the lockdown order for a locality was issued by the Department for Emergency Situations within the Ministry of Internal Affairs, the incidence rate of infections being only one of the criteria taken into account.

At the same time, the hybrid teaching option was abolished, the Minister of Education declaring that it was ineffective, and that it was impossible for teachers to keep track of half the students in the physical classroom and the other half online. However, the same minister stated that students who have vulnerabilities or relatives suffering from medically certified issues would be able to study online and that, in that case, teachers would be able to teach online. Given this, the question was raised whether the teaching act carried out in such conditions was effective and whether the teachers could manage it fairly for all students, including those who were learning online (Edelhauser and Lupu-Dima 2021).

Another change was made regarding the measures of physical distancing between students, as the plexiglass panels, a solution which had been implemented at the beginning of the school year and which had worked for a maximum of six weeks, up to when teaching went online, were eliminated. The physical distance between the children, especially in crowded classrooms in the big cities was less than one metre, contrary to any sanitary protection norms in effect during the pandemic. One week before the resumption of in-person classes, 30 counties were in the green scenario, 11 in the yellow scenario, and only one county (Timiș) in the red scenario. Even without students in class, a school in Bucharest became ground zero for the new SARS-CoV-2 strain.

The Minister of Education believed that online teaching generates structural losses that can only be recovered if schools reopen, and the pandemic has greatly affected the quality of education in Romania. Regarding the possibility of schools becoming ground-zero for the disease, he believed the main problems to be related to social distancing on public transport and the amassing of parents within schools, especially during school pick-up hours. However, these aspects should have been taken into account when it had been decided to raise the incidence threshold which

allowed preschoolers and primary school pupils to go to school, or when preventive measures had been done away with, such as closing schools down for disinfection once three Covid cases were detected in different classes.

Another issue was related to the budgetary pressures generated by online education. Children, especially young children (in pre-school and primary education) who were forced to study online due to the epidemiological situation, had to stay home and be watched over, and their parents were required by law to receive government financial support. In this regard, the Minister of Labour and Social Protection announced that parents who stay at home to supervise their children will receive state support in the amount of 75% of their salary only if the authorities decide that the schools would operate online. However, it was precisely these children, as part of small age groups, who were the ‘priority’ when it came to in-person education, initially even to the detriment of those in their final years, who were to sit their national graduation examinations. The official arguments for making this decision were that ‘in grades 0–4, teaching is the most challenging, and epidemiologists say that the youngest are the least prone to transmitting the virus’.^f

Reopening Schools with In-person Classes. The Third Wave of the Pandemic

The reopening of schools in physical format, without proper physical distancing between children in the classroom, generated, as expected, an increase in the number of Covid cases, including in schools.

Another obvious trend which manifested itself after the reopening of schools was the increase in the infection rate among young people, including, according to the National Institute for Public Health, a doubling of cases in the 5–9-year-old age category. As most children and adolescents were carriers of the virus and lived with their parents, the infection spread among them, as was also confirmed by the increased incidence of infections in adults.

However, the Minister of Education was very confident about maintaining a low rate of infection in schools, believing that in the event of a new wave of the pandemic ‘schools would be the last to be closed’. In addition, the same minister proposed that students in their final years (grades 8 and 12), who had to sit final exams, go to school in-person even in the red scenario, given that more and more localities were entering this stage. It was a correct proposal from a teaching perspective, but it contributed to an intensification of the virus transmission. These students were supposed to have been prioritized for in-person classes in the red scenario, even to the detriment of kindergarten and primary school students, as they are fewer in number and physical distancing measures could be better implemented. Another idea put forward was that of eliminating the obligation to wear a protective mask during Physical Education classes, despite the fact that the virus being mainly airborne was a proven fact (Colao *et al.* 2020).

On the other hand, despite the efforts of the Ministry of Education, the degree of testing in schools remained very low, due to the small number of health professionals active there (approximately 4000 for about 18,000 schools). In addition, many of

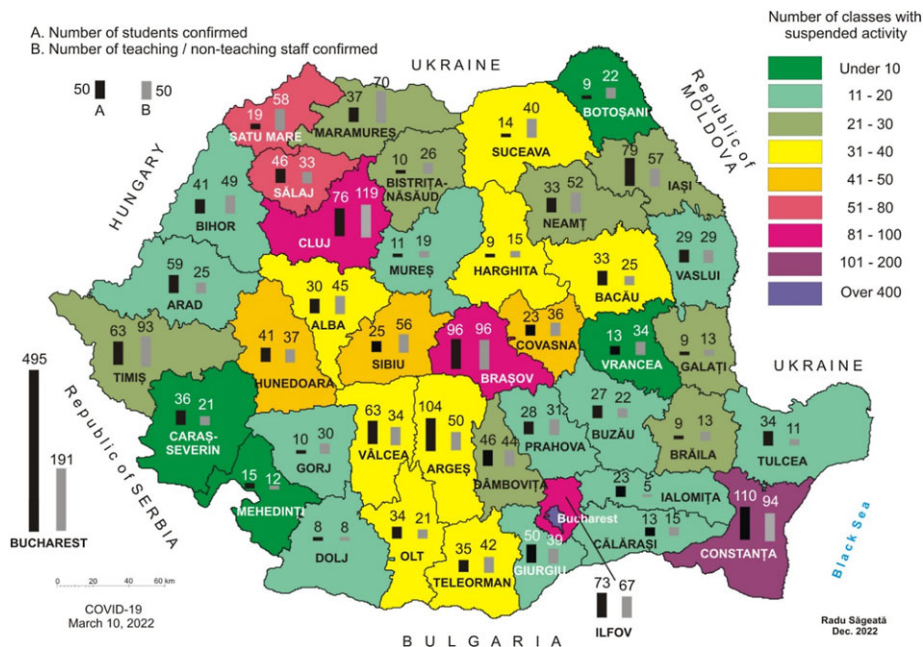


Figure 1. The situation of infections among students and teaching/non-teaching staff at the peak of the third wave of the pandemic (10 March 2021).

they were involved in the national vaccination campaign. Many tests were performed late, after the onset of symptoms and after other people had already been infected, while others, purchased from pharmacies, were done in private, without reporting mild and asymptomatic cases to the Directorate of Public Health. Therefore, the actual rate of infection was much higher than reflected in the official statistics, as confirmed by the large number of deaths and serious cases that required hospitalization, especially in Intensive Care Units.

An aspect specific to this third wave of the pandemic was the high number of serious cases, despite the lack of a significant increase in the total number of infections, since given the widespread commercialization of rapid tests in pharmacies, many people who tested positive in their own homes did not relay the result to the Directorates of Public Health, and were not included in the official statistics. The new pandemic wave also stood out through the evolution of cases among students, which skyrocketed, reaching over 150% just one month after schools reopened (Figure 1).

In this epidemiological context, a joint order was issued by the Ministries of Education and Health,⁸ which stated that in the red scenario the students from the 8th, 12th, and 13th grades as well as from the final years of post-secondary and vocational schools would attend school in-person alongside all preschoolers and primary school students – up to half of the total number of students enrolled in the respective final years. Therefore, as a result of a compromise between the two

ministers, the hybrid scenario for the final years was reintroduced, although only a month prior to this, the Minister of Education declared himself firmly against this educational scenario, deeming it ineffective.

This led to obvious discrimination between students: if primary school students had to be physically present in school for the whole class even in the red scenario, up to an infection rate of 6‰, those in grades 5–7 would go online in the yellow scenario, once a much lower incidence of only 1.5‰ was reached. On the other hand, public health specialists drew attention to the higher degree of vulnerability of children and young adults to the new strain of the virus, a fact confirmed by the increase in the number of cases, since the latter could also be carriers of the virus. Under these conditions, it was not clear by what criteria the children in primary education had to be physically present in school, risking infection in classes of 35–40 students each, at incidences of over 3, 4, 5, even up to 6‰, and later, in the fourth wave, of up to 20‰, while their colleagues, only a few years older, stayed at home, taking part in online schooling, at much lower incidences, of 1.5–2‰. Moreover, by introducing the hybrid system only for final years, the groundwork for absurd situations was laid out: while the 20–30 students in their final years had to take turns in attending school, primary classes of 35–40 students each, comparable in actual spatial area, dealt with a mandatory physical presence for all students in that class (Mitică *et al.*, 2021).

Nationally, the number of officially reported daily cases was rapidly growing, exceeding 6000 (as of 23 March 2021), with more than 40% of new cases occurring in the capital. Thus, the issue was raised regarding the efficiency of a possible lockdown in Bucharest, taking into account the size of the city and the logistical support necessary to implement such a measure. These concerns were bolstered by street protests against restrictive measures and even against the wearing of protective masks. Various compromise solutions were sought (partial lockdown, weekend lockdown), in which restrictive measures would have as little impact as possible on the population and on businesses. The closure of schools by transitioning to online learning was at the forefront of these measures, the authorities issuing the order by which schools had to be physically closed at an incidence of 6‰.

The Minister of Education, loyal to the principle that ‘schools should be closed last, only if the epidemiological situation requires it’, believed that the closure of schools without other complementary measures will not produce the desired effect and that by returning to online education, new learning losses will be incurred, and socializing disorders among students will worsen. Thus, in order to avoid online learning for students in the capital, the legislative criteria changed yet again: in February the threshold for going online was increased from 3‰ to 6‰, a month later it was altered once more, coming into effect ‘once the locality itself was in lockdown’.^h However, in other localities, schools were closed at the threshold of 6‰ without the locality going into lockdown; in Braşov, for example, students who went online at the 6‰ threshold were forced to return to school under this order at an incidence of 7.02‰ because the city had not gone into lockdown. Likewise, in Timișoara, once the city was locked down, students returned to school at an incidence of 8.4‰, after having gone online at 6‰.

At the same time, the structure of the school year was modified by extending the Easter holidays and the second semester, arguing that the peak of the third wave of the pandemic would be reached in April and that schools would go online anyway. The vacation would help reduce the mobility of students from home to school,ⁱ while the vaccination campaign was expected to gain momentum in April. The reasons for such a decision were: reducing inequities among students as a consequence of online learning, avoiding the epidemiological peak of the third wave forecast for April, but also intensifying the vaccination campaign, at the same time as introducing non-invasive tests in schools in May.^j Given this, the officials with the Ministry of Education were hoping to resume in-person learning activities in May for all students, regardless of the incidence rate of Covid cases. The summer holidays would begin in June.

After a rising trend in cases at the beginning of April, which put intense pressure on the healthcare system and especially on the Intensive Care Units, owing to the large number of serious cases, the general trend of the pandemic was reversed. The causes were, on the one hand, the restrictive measures taken by the authorities (which included the extension of the Easter holiday) and, on the other hand, the intensification of the vaccination campaign. However, despite the optimistic statements on the side of the authorities, the data placed Romania among the last in Europe when it came to the share of the population vaccinated with both doses of the vaccine.

The Inevitable that Took Romania by Storm. The Fourth Wave of the Pandemic

Romania's transition towards the fourth wave of the pandemic had been confirmed by health officials as early as the second half of August 2021, when the first localities entered the red scenario. In addition, the representatives of the Ministry of Health confirmed that the Delta version of the virus was more contagious and affected children and young people to a greater extent. In this context, the scenario for the opening of the new school year provided for the return of all students to schools and for keeping schools open until the infection rate in a locality exceeded 6%.^k

Stemming from the rapid increase in the infection rate throughout the country and the exceeding of the critical value of 6% in Bucharest, the threshold from which teaching activities were supposed to have transitioned to the online system, the National Committee for Emergency Situations decided to separate scenarios for the operation of local schools from the infection rate, and to adopt decisions to suspend physical attendance based on the number of confirmed cases per class/school, as well as bolster control measures in order to effectively comply with the guidelines for health protection (Colao *et al.* 2020).

On the other hand, the Minister of Education believed that, after an 18-month-long pandemic, when Romanian education 'experienced' the online system, the primary legislation in Romania does not allow for online learning. A possible

shutdown of schools was now left to the decision of the management of each educational unit. It was the same scenario as in March, when, although only one month prior the Ministerial Decision had established that 6‰ be the threshold when learning activities would move online, once the capital reached this value, the threshold for going online was changed and replaced by that of the locality going into lockdown. The better option was seen as extending the Easter holiday. The rapid increase in the rate of infections, up to record values of 17‰ in Bucharest and over 20‰ in some localities in Ilfov County, once again pushed the authorities to issue a forced two-week student vacation, while also forming a plan to subsequently make up for the lost curriculum. Thus, if the students in grades 5–7 had stayed online for most of the 2020–2021 school year due to an incidence of only 1‰, returning to school in May, only one month before the end of the school year, they were now going to school when enormous values of above 20‰ were registered, given that the viral strain that caused the fourth wave was much more aggressive towards children and young people. Already at that time Romania ranked second in Europe and sixth in the world according to the number of deaths caused by Covid-19 over a period of 24 hours. However, the Minister of Education believed that ‘every effort must be made to close schools last and open them first, since online education was not up to snuff’.¹

After a mandatory vacation starting 22 October and the introduction of measures to restrict access to large shopping malls and other crowded public spaces based on the Green Pass, the infection rate reached a plateau and, ultimately, receded. However, the number of cases and deaths recorded over a period of 24 hours remained extremely high. Teachers were also among the victims, which led several schools to transition to the online system.

In that epidemiological context, it had also become clear to education officials who wanted a physical presence in schools that the risks due to student overcrowding outweighed the benefits of physical education. In primary education (where vaccination was not possible at the time) Romania has the classes with the highest number of students in the EU. Thus, if in European Union schools there are on average 14 students per teacher, Romania has classes with almost 20 students per teacher, while in the capital and in the big cities – which reached the highest values of the infection rate – the number of students in any given class is in excess of 30–32. The National Committee for Emergency Situations proposed,^m for the first time, that the ratio of vaccinated staff in a school unit be the only criterion for carrying out teaching activities. For the resumption of in-person teaching activities, it had to be at least 60% of the total number of teachers in the school. At the time, this criterion was met by 54% of schools across the country, especially in urban areas and large cities, where the highest incidence rates of infections were recorded.

Replacing the incidence rate of infections, much more relevant to the epidemiological situation in a locality, with the percentage of vaccinated staff in schools was a measure designed to stimulate vaccination among school staff rather than limit the transmission of the virus. The fact that students were the main vectors of virus transmission was ignored, especially when talking about crowded classrooms in the capital and in the big cities, which also faced the highest incidence rates of

infection. Conversely, in rural areas, where the percentage of vaccinated people was on the lower side, classes had a small number of students, who were forced to go online. Then there were also the critical aspects of connectivity, students' access to the IT infrastructure, and teacher training for online education. Therefore, this decision had a double negative effect: on the one hand, it contributed to a greater transmission of the virus in the big cities, the most vulnerable from an epidemiological point of view and, on the other hand, it widened the gap between those students who had access to technological resources and others who were struggling financially. One such example is the town of Otopeni in Ilfov County, which had an incidence of 19.55‰ (on 6 November 2021) and the local high school had 66.89% of its staff vaccinated, so school started in-person. Adversely, in the commune of Jina in Sibiu County, where the incidence was 0‰, but only 14.3% of the school staff were vaccinated, school started online. At the national level, in half of the localities without any reported cases of Covid-19 (in 22 out of 43), students could not go to school because fewer than 60% of the school's employees were vaccinated.

Discussions. Highlighting Managerial Deficiencies

The inconsistency and lack of decision-making predictability were the main characteristics that marked the decisions regarding the management of educational activities during the coronavirus pandemic in Romania. While at the beginning of the 2020–2021 school year online education was tightly related to the value of the cumulative incidence of infections, later on, beginning November 2020, it was generalized by government decision, so that starting February 2021 the incidence of infections was to be taken into account yet again, but at other rates. When the 6‰ threshold was reached in Bucharest, the transition to online education was conditioned by the quarantining of the locality, but since the quarantine of the capital had proven to be ineffective, prolonged vacations were regarded as a better solution, rather than switching to online education. During the fourth pandemic wave, the deciding factor for the transition to online education was the ratio of vaccinated staff in educational units, as students were not taken into account as vectors for the transmission of the virus. Later on, the emphasis was placed on the degree of occupancy of Covid-dedicated hospitals. While at the beginning of the pandemic substantial investments had been made in the purchasing of tablets, these were ultimately denounced by the new leadership of the Ministry of Education on the grounds that they were being used for other purposes outside the educational sphere.

A complex analysis carried out in this regard in four developing countries in Asia and Africa (Onyema *et al.* 2020) highlights the fact that the main limiting factors for the development of educational activities in the online system during the coronavirus pandemic were poor digital skills, poor school policies, inadequacies regarding the usable digital technology available, network issues, deficient facilities, the lack of infrastructure and funding, as well as a resistance to change on the part of those involved in the educational and decision-making process. These issues were also

reflective of the situation in Romania (Edelhauser and Lupu-Dima 2020). The same authors analysed (2021) the main methods for implementing online education, as well as the impact of the Covid-19 pandemic on the education system in Romania, reaching the conclusion that the students responded very well to these challenges, most of the teaching staff adapted to the new demands, but the managers in the field of education did not meet these challenges as expected, proving to be the most unprepared actors in the education system:

the realities of this period have led to the undeniable conclusion that Romanian managers in the education system have dealt with the COVID-19 crisis inefficiently, and that, for the future, they must improve their contribution to the educational act by including the online methods tested and developed during this period as a sustainable evaluation in the future education system, in the curricula, and in the teaching methods, since the education of the future will, most likely, be a hybrid one.

In turn, Marin (2022) thought that the flows of information between central, county and local levels did not seem to work properly, especially concerning the timing of going into the online scenario, or the support concerning the diversity of available educational platforms.

All these were joined by the disproportionate approaches to the epidemiological situation: while in the first period of the pandemic students were learning online, a decision which had come as a result of a low infection case incidence, as soon as criticism was brought regarding the online education system by the new Minister of Education at the time, the same students were forced to attend school in-person during times of much higher incidence values, a consequence of the authorities' desire to speed up the vaccination process.

On the other hand, as shown by Buturoiu *et al.* (2021), the low level of education added fuel to the conspiratorial belief fire regarding the coronavirus and the vaccination process, which largely explains the low vaccination rate among the Romanian population.

The deepening of the educational divide between students against the backdrop of social disparities that led to the limited access to online education for some students coming from disadvantaged backgrounds (Marin 2022), the forced in-person school attendance for pre-schoolers and primary school students (who in the online system would have required adult supervision, thus leading to the removal of the parents from the economic chain) and, at the other end of the spectrum, the forced online school attendance in higher education round out the list of managerial failings concerning educational activities in Romania during the coronavirus pandemic.

Conclusions

This study contributes to expanding the degree of knowledge on the particularities of the management of educational activities in a period of prolonged health

crisis, in a country with an underfunded health and education system, which still inherits the infrastructural and mentality deficiencies amassed during the communist period. At the same time, our study is intended to shed light on additional aspects regarding how to introduce online education in Romania, and the advantages, deficiencies and challenges that the Romanian education system has faced in the context of its expansion as forced by the pandemic, in terms of this type of education.

With the Covid-19 pandemic, a new form of education appeared in Romania, namely online education. In Romanian legislation (Education Law No. 84/1995 and the National Education Law No. 1/2011, alongside their subsequent amendments and additions) no reference is made to this type of education system, since Romanian society has not faced a pandemic of this magnitude in recent decades. There have been other outbreaks, but much more restricted in areas and in times when there was no such thing as computer technology or the internet, or when access to these resources was limited. Therefore, teachers and students adapted individually, each as they could, both in terms of knowledge and access to information technology.

During the 2020–2021 school year, about 237,000 students from financially-challenged backgrounds in Romania did not have access to the internet, and 287,000 did not have access to online learning tools, despite the efforts of central and local authorities to ensure the necessary infrastructure and logistics. They missed 24 weeks of school due to the lack of access to information technology or the insufficient training of teachers in the field of digital education. Most of these students come from rural areas, precisely the most suitable areas for the traditional education style, owing to the smaller number of students in a class and the possibility of maintaining an optimal physical distance. Thus, online education has contributed to the widening of inequalities and gaps between students.

Opinions differ regarding online education: some education experts believe that it has negative consequences for students for life, causing significant educational losses and emotional imbalances, while others believe that it is the solution of the future. Online education cannot replace the classical system, especially in small classes, but it can come to its aid. In health crisis situations, such as the Covid-19 pandemic, it can be a viable solution for states with vulnerable medical systems, such as Romania. At the same time, such crises can contribute to a real modernization of education, by introducing and familiarizing teachers and students with computerized work techniques and improving skills in this regard. All this provided that the ‘technological advantage’ gained through online education is not subsequently wasted, given that public health professionals believe that global environmental change is creating the preconditions for an increasing frequency of pandemics (Popescu 2020).

The main deficiencies of online education in the way it was implemented in Romania during the analysed period would be: (1) the lack of protocols, which allowed for an extremely permissive approach from both teachers and students, given that there was no coherent approach on the part of the authorities coupled with minimal training, which led to (2) students and teachers becoming apathetic amid the lack of protocols, minimizing the duration of classes and the amount of self, at-home

study; (3) a poor/unstable internet connection; (4) the deficient provision of the necessary devices for the development of online learning; (5) the deficient training of teachers in the use of online devices and platforms (there was no unitary platform approved by the Ministry, everyone adapted as best they could, there were no courses for teachers to acquire the basic skills for using computer platforms); (6) the large number of students with whom a teacher is supposed to work; (7) the lack of an efficient and secure digital assessment platform; and (8) teachers losing their interest in ensuring good quality education.

Notes

- a. Including interim ministers. Some held the office of Minister of Education several times, while others only did so for several months.
- b. Government of Romania, Ministry of Education and Research, Order on approving the instructions for creating and/or strengthening the capacity of the pre-university education system through online learning, No. 4 135 of April 21, 2020, Official Gazette of Romania, 331, April 23, 2020.
- c. Education Law No. 84/1995 and the National Education Law No. 1/2011, with subsequent amendments and additions.
- d. The education system in Romania comprises the pre-school system (lasting three years), the general education system (lasting 12 years – K-12) and the higher education system (consisting of three stages: Bachelor studies, Master’s studies and Doctoral studies). The general (K-12) system is, in turn, divided into elementary school (lasting three years), middle school (three years) and high school (three years).
- e. Government of Romania, Decision No. 935 of 5 November, 2020 amending and supplementing Annexes 2 and 3 to the Government Decision No. 836/2020 regarding the extension of the state of alert in Romania starting 15 October, as well as the establishment of the measures enforced during this period for the prevention and control of the COVID-19 pandemic, the *Official Gazette of Romania*, 1 042, 6 November 2020.
- f. According to the Minister of Education, 2 February 2021. www.portalinvatamant.ro.
- g. Government of Romania, Ministry of Education & Ministry of Health, Order on amending and supplementing the Order of the Minister of Education and the Minister of Health no. 3235/93/2021 for the approval of the measures for organizing the activity within the educational units/institutions in epidemiological safety conditions for the prevention of SARS-CoV-2 virus infections, Official Gazette of Romania, I, 228, 6 March 2021.
- h. Government of Romania, Ministry of Education & Ministry of Health (2021), Order on amending and supplementing the Order of the Minister of Education and the Minister of Health No. 3235/93/2021 for the approval of the measures for organizing the activity within the educational units/institutions in conditions of epidemiological safety for the prevention of SARS-CoV-2 virus infections, No. 3515/393/2021, Official Gazette of Romania, I, 292, 23 March 2021.
- i. A false argument, as in the absence of other restrictive measures, the intra and interurban mobility towards the tourist areas increases during the holidays, etc.
- j. Student testing was not introduced until December 2021, after the fourth wave of the pandemic had already receded.
- k. According to the Order for approving the measures for organizing the activity within the educational units/institutions in epidemiological safety conditions for the prevention of SARS-CoV-2 virus infections, Ministry of Education No. 5 196, Ministry of Health No. 1 756, 3 September 2021, Official Gazette of Romania No. 848/6.9.2021.
- l. *Every effort must be made for schools to close last and be the first to be reopened* – the address of the Minister of Education, Mr. Sorin Cîmpeanu, <https://www.edu.edu.ro/>, 28 September 2021.
- m. Decision No. 99 of 5 November 2021 on establishing the necessary measures to be enforced in educational institutions, in the context of the COVID-19 pandemic, the Government of Romania, the National Committee for Emergency Situations.

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About the Authors

Radu Săgeată, PhD, is Associate Profesor and Senior Researcher at the Institute of Geography, Romanian Academy, Human Geography and Regional Development Department. Radu's main fields of work are: urban geography, geography of population, political geography and geopolitics, regional development and territorial planning. Radu Săgeată is the author or co-author of 34 scientific books, 226 scientific articles published (74 indexed in International Databases, 20 indexed in Thomson Reuters Database), is director of four research projects/grants, and a team member in more than 15 research projects/grants.

Nicolae Geantă, PhD, is a geography teacher at 'Constantin Istrati' Technological High School in Câmpina (Romania). Nicolae's main fields of work are geography, the geography of religion, geopolitics, the geography of resources, Roma ethnic studies and demographical statistics. Nicolae Geantă is the author and co-author of eight scientific books, 30 published scientific articles, Roma analyses and studies, educational projects focusing on inclusion, etc. He is the founding director of the geography journal 'GeoPrahova'. Over the past 20 years, he has been presenting his work at various national and international geography conferences. He has also built a visible presence on social media.

Nicoleta Damian, PhD, is Senior Researcher, Institute of Geography, Romanian Academy, Environment and GIS Department. Her main fields of work are: geography of human settlements, geography of population, social geography and economic geography. She has been involved in different national and international research projects and has published 19 chapters/books, and over 50 scientific articles focused on her different fields of interest (e.g. population geography, socio-economic vulnerability, rural geography, and regional development).

Mihaela Persu, PhD, is Senior Researcher, Institute of Geography, Romanian Academy, Human Geography and Regional Development Department. Mihaela's main fields of works are: rural geography; population and settlements geography; local and regional development. She was part of several national research projects and her studies have been published various books and over 50 scientific papers on rural space and population, changes in the structure of population, demographic aging, systems of human settlements, green spaces, and cross-border cooperation.