

Distance Learning (Summary)

The Educational Research Unit within the National Center for Educational Policies and Evaluation conducted, at the request of the Ministry of Education and Research, a study among students, teachers, school principals and parents, to assess the educational activity carried out during the physical school closure. The purpose of the research was to identify the perceptions and opinions of the school stakeholders with regard to access and participation in distance schooling, organization of the activities with the students, support needs, priority ameliorative intervention areas and proposals to enhance the effectiveness of the organization of the distance learning process.

As part of the enquiry based on a self-administered online questionnaire (using the SurveyMonkey platform), four questionnaires were applied, for each category of relevant educational stakeholders: students (5th to 12th grades), teachers, principals of pre-university education units and parents. Data gathering (filling in the questionnaires) took place in the period May-June 2020, in all counties and in the Municipality of Bucharest, and the questionnaires filled in were anonymous. For students, the database was weighted according to gender distribution and level of education (secondary school, high-school – vocational school). For parents, the base was weighted according to school residence (urban, rural). The databases with the principals' and, respectively, teachers' answers were not weighted. The number of validated questionnaires after cleaning the databases was: 6166 principals; 65309 teachers; 219073 students; 316492 parents.

The main limitation of the research was the fact that the participation in the study of the investigated population depended on access to a device/equipment connected to the Internet, in order to fill in the questionnaires, as well as minimum digital competences required for this purpose. Another limitation of the research was the difficulty to control the respondents' belonging to the targeted categories, because of the method of data collection by means of the Survey Monkey platform.

1. Under what circumstances were the learning activities carried out during the pandemic?

1.1. Access to equipment and Internet connectivity

- ✓ Access to proper equipment for online learning (PC, laptop, tablet or smartphone) is a *sine qua non* requirement to participate in online learning. Most of the school stakeholders surveyed mentioned the fact that students in the rural area (particularly villages which are not communes) and those enrolled in vocational/dual education represent the categories for whom limited access to equipment was the most important obstacle in online learning. The data reported by teachers show that providing children with access to digital equipment is more difficult for parents with a low level of education (did not graduate from school, primary, secondary education, as well as graduates of vocational school) and with generally precarious employment status (unemployed, homemakers, workers in agriculture, retired).
- ✓ The *smartphone* was the most frequently used device for learning during homeschooling, a situation reported by the surveyed teachers, students and parents alike. The share of students who used a PC or a laptop - tools that are more appropriate for a complete online learning experience – was significantly lower. According to the data reported by parents, a quarter of the students do not have a working computer (PC) or laptop at home with Internet access, while

out of those who have such devices, only just over half own one themselves, the remaining having to share the device with other family members.

- ✓ The research results show that one of three parents could not ensure access to a working PC/laptop connected to the Internet to enable all children in the family to carry out online learning activities during the physical school closure. This fact is also confirmed by teachers, more than 60% of them reporting situations where their students have to share with other family members the devices they need to participate in online activities (55% urban and 70% rural) and more than 40% reporting that they have students who do not own such devices (34% urban and 55% rural).
- ✓ Some teachers faced, in their turn, difficulties in accessing the devices necessary for online schooling: more than a third (38%) of them said that they share with other family members the equipment they need to carry out the teaching process, while 11% that they do not own such devices. This situation is reported to a greater extent by the teachers in the rural area, compared to those in the urban area (13% versus 9%).
- ✓ For 11% of the teachers, poor connection to the Internet (determined by the absence of a broadband connection, frequent interruptions/unstable signal, a less performing router, etc.) was a challenge in online learning. For teachers in the rural area, the phenomenon is even more present, almost one in five respondents reporting the fact that they do not have access to good quality Internet (18%).
- ✓ More than 40% of the teachers said that some of their students did not have access to quality Internet, to allow them to easily and actively participate in online learning (34% urban and 55% rural). The data resulting from the open questions also indicate situations where the pupils used difficult connectivity as a pretext to justify a less active presence, particularly in the case of synchronous online lessons (participation with the camera turned off, use of chat instead of audio communication, etc.).

1.2. Online learning platforms at school level

- ✓ Another major requirement for organizing online learning activities is the use of a learning platform. The research data provided by the teachers and principals indicate that only one of two teachers worked, during homeschooling in the school year 2019-2020, with the help of an actual learning platform (such as Google Classroom, Moodle, Edmodo, Kinderpedia, MyKoolio, Class Dojo, Microsoft Teams, Digitaliada etc.). Again, the differences by residence are significant, to the disadvantage of the rural area: 62% urban and 39% rural.
- ✓ At least during the first period of the school closure, the decision regarding the learning platform used belonged entirely to the teachers. The number of schools which had adopted and consistently used such a platform before the pandemic was very low. Many schools were not prepared for actual online learning, a situation reflected by the fact that less than half of them used a unique platform established at school level (44%), as well as the fact that more than 60% of the schools left the choice of the preferred learning platform up to the teachers. The last situation is most probably determined by the insufficient organization at school level or, in other cases, by the varied experiences and competences of the teachers in a school, with regard to the use of certain digital platforms and tools.
- ✓ The research data provided by the principals and teachers confirm the fact that the process of adopting a platform at the level of the school unit was, at the end of the school year 2019-2020, ongoing and, most probably, they were to be fully working (accounts created for each student

and teachers, enabled sections/functionalities, loaded content, etc.) at the beginning of the school year 2020-2021.

- ✓ As an alternative, many teachers combined direct online interactions (synchronous) supported by specialized collaborative communication applications (such as Zoom, Skype, Meet or Webex) with offline work tasks for students, the solutions to which were photographed and sent by mobile phone or applications such as WhatsApp or Messenger. Almost 60% of the teachers who participated in the enquiry indicate the fact that they adopted such a strategy.

1.3. Support provided by the family

- ✓ Family plays an important role in supporting students to actively participate in online learning. Nevertheless, only one of three teachers reported that their students benefited from this support. There are differences by residence, parents in the urban area being mentioned in significantly higher share (38%) compared to those in the rural area (29%) as active factors who were involved in supporting distance learning. Moreover, in families with a higher education level (upper secondary education), where the students' autonomy is higher, the support is less.
- ✓ The relatively low share of principals who said that their schools received support from parents' associations (11%) stands out. Even though the parents played a key role in the adjustment to distance/online schooling, the institutionalized support they provided, through parents' organizations, seems to be less compared to the individual one. This was particularly reported in the case of rural schools.
- ✓ Results are consistent according to the data reported by parents as well. About a third of them (36%) said they got involved in their children's school activity to the same extent as before school closure, while, for nearly 30% of parents, the children's distance learning was more challenging, requiring more involvement from their part; 14% of parents were involved less in the children's educational activities, compared to the previous period; more than 20% of parents did not get involved at all, either because they did not need it, or because they lack sufficient competences to help their children.
- ✓ Only 4% of the surveyed parents reported the fact that they could not support their children in the online activities because of the lack of time. The higher the parents' level of education, the higher their level of involvement in the children's school activities is.
- ✓ The children's autonomy in using technology (as a share of those completely autonomous in using educational applications) varies greatly depending on the level of education, from 7% for children in preschool education, to 80% for high-schoolers. The data provided by principals highlight the fact that students with reduced opportunities, who come from socio-economic disadvantaged families, were more affected by the lack of support provided by the family, compared to their peers, in terms of both access to equipment, and actual support in online learning activities (connectivity, participation in synchronous/asynchronous interactions, solving work tasks, etc.).

1.4. Support provided to the school at local level

- ✓ According to the information provided by the teachers, the most significant support initiatives came from NGOs and companies. A share of 89% of the teachers said that they received support in using the new technologies in educational contexts by means of platforms, applications, tools made available on dedicated websites, webinars. According to the teachers, mayoralities and local councils also had a significant contribution (80% of the respondents indicate the support received from them).

- ✓ The principals' point of view differs, as they relate to the activities at the level of the entire school. The school managers identified the educational authorities at county and national level – County School Inspectorate / School Inspectorate of the Municipality of Bucharest (62%) and the Ministry of Education and Research (36%) – as main sources of support. These institutions have mostly played the role of establishing the overall framework for distance learning, as well as monitoring, so that a coherent and consistent effort is ensured.
- ✓ Under the circumstances of an acute need of support from the local authorities, it is important to note the fact that only one out of four principals (26%) reported the fact that the mayoralty/local council supported the school during the physical school closure. The help provided by local authorities in the urban area was more reduced compared to that provided by local authorities in the rural area (22% versus 31%).
- ✓ Other support factors for principals, in view of organizing distance learning activities, were Casa Corpului Didactic (22%), NGOs/private companies (11%), CJRAE/CMBRAE (9%). Reported with less involvement were also other categories of support factors: institutions at local or county level (County Council, Police, the Church), universities/higher-education teaching staff, radio stations, training providers from abroad, commercial units from small localities (involved especially in distributing learning materials).

2. How were the learning activities carried out during the pandemic?

2.1. Form of organization

- ✓ The physical school closure led to the necessity to set up proper ways to continue classes, at the level of each school, while the managerial teams decided on how to organize distance learning activities and communication with the students. The research data show that the main options were related to: ensuring access to equipment, existence of an online learning space, balance between synchronous and asynchronous activities, existence of internal human resources with IT competences (e.g. the school's computer technician), level of digital competences required for school stakeholders, in order to participate in online learning (particularly teachers and students).
- ✓ The research data show that schools made these decisions differently (available resources, internal consultation method, reaction time), but, to a very large extent, school activities continued, in various forms. Almost all surveyed principals (92%) said that they organized distance learning activities both before and after the issuance of the official regulations of the Ministry of Education (OMEC no. 4135/2020). Most schools in the urban area which were not able to organize such activities come from the small urban, towns which are not county seats; in the case of the rural area, schools in this category are situated in villages which are not centers of commune.
- ✓ The principals said that the organization and development of learning activities were, in general, established at school and/or department level. The transmission of resources and learning tasks by various digital communication means was the schools' main choice. There were schools which resorted to alternative, non-digital, distance learning forms: communication by phone with the students, delivery of resources or learning tasks in print format, including with the support of post services. These means were more often used by schools in the rural area, a situation which proves the more difficult access to TIC resources and poorer connectivity to the Internet, compared to schools in the rural area.
- ✓ The data provided by the students confirm the fact that educational activities during the physical school closure utilized, to a large extent, the new technologies. The learning activities

consisted of: the teaching staff making available online lessons and work materials, using educational platforms as support (76% of students), live meetings with the teaching staff via video-conference applications (over 70% of students), communication with teachers via *social media* and e-mail applications (57% of students).

- ✓ The analysis of the students' responses depending on the school's residence shows that the use of educational platforms and applications for synchronous activities with the teaching staff was significantly lower in the rural area, compared to the urban area, the differences being between 7 percentage points (applications for online video-conference) and 20 percentage points (educational platforms).
- ✓ With a more reduced frequency non-digital activities were indicated: viewing of Teleschool programs (5% of the students), communication by phone with the teachers (5% of the students), use of study materials in physical format, delivered by teachers directly, by post or through various persons (2% of the pupils). These data are convergent with those provided by parents, who mentioned the following forms of communication and working: 10% of them say that the teachers kept in contact with the children (also) by phone, 7% report that the child's distance learning was achieved by the teaching staff transmitting work materials in physical format, by post or through various persons; television programs represented a secondary distance learning method for children, only 5% of the parents mentioning these types of educational programs.
- ✓ According to the information provided by the teachers, the most often used educational resources were: Teleschool programs - mentioned more frequently by teachers in the urban area and those teaching in high-school; evaluation sheets/tests; presentations (Prezi, PPT) - were more frequently used by teachers in the rural schools compared to those in the urban area, as well as those teaching in secondary school, compared to those in high-school; reading texts, that were used in much greater shares by teachers teaching in secondary school and in high-school, compared to those in primary and preschool education.
- ✓ Most probably on the background of the lack of other communication means, 16% of the surveyed teachers indicated the fact that they called upon other persons (for instance, homeroom teachers, parents, school mediators, representatives of local authorities) to deliver learning materials in print format to the students, and 3% delivered the materials to the students by post.
- ✓ Great difficulties in organizing distance learning were reported by principals in the case of schools carrying out the "Second Chance" Program, especially level I and II in the primary education, as well as the schools with a significant number of students with disabilities and/or special educational requirements.

2.2. Students' participation in online learning activities

- ✓ Most of the surveyed students (94%) indicate that they attended the educational activities organized by school teachers, in various forms. Non-participation in distance learning was mainly influenced by limited access to the Internet or poor and temporary connection, that mostly affected the students in the rural area. Another cause indicated is the delayed organization or even lack of activities in online format, a situation more frequently seen in pre-school, primary and secondary level. The data from the parents also show that both the level of organization of distance schooling activities by the teaching staff and the level of participation among students were very high, and the reasons of non-participation are similar to those indicated by students. Greater difficulties are reported by parents in the rural area,

particularly the small rural (localities which are not centers of commune), by those with occupational status associated with insecurity (unemployed, workers in agriculture or homemakers) and those with a low level of education (non-graduates, primary, secondary education), as well as parents with more children enrolled in school/kindergarten.

- ✓ According to the information provided by the teachers, two thirds of them say that they worked with all students, over 20% - with more than half of students - while the remaining - with more reduced groups of students. The teachers who declared to a greater extent that they worked with higher shares of their students are part of the following categories: coming from urban schools, having full-time professional degree/teaching degree, having higher seniority in education, activating in the primary level, respectively high-school, having digital/TIC competences.

2.3. Frequency of carrying out learning activities

- ✓ The surveyed students report the fact that, during the physical school closure, they participated in: activities of doing the homework given by teachers (activities carried out daily by 67% of the students and 2-3 times a week, by 26% of them); online lessons and activities with the teachers (daily– 58% of the students; 2-3 times a week – 28% of them); educational TV programs (daily or 2-3 times a week – 32% of the students); carrying out school activities with the involvement of parents or other family members (daily or 2-3 times a week – 23% of the students); tutoring or additional learning in one or more subjects (daily or 2-3 times a week – 22%). The students facing evaluation exams at the end of a course of study registered participation rates twice as high or higher in additional learning activities, compared to other students; thus, 47% of 8th grade students and 42% of 12th grade students carried out these activities on a frequent basis.
- ✓ Almost three out of four parents (71%) report a daily attendance of children in distance classes, while 1 of 5 parents indicate a constant participation, on average, of 2-3 times a week. It remains problematic the fact that a not inconsiderable number of parents (5%, representing 16726 parents) say that the children's participation was sporadic, of only a few times a month.
- ✓ Most students used the phone, computer, tablet or TV for school activities, between 3 and 4 hours/day. Comparing with the average of 5-6 hours/day of actual presence in the classroom, during the physical school closure period, plus the time spent on homework, we can estimate a reduction in objective terms of the time dedicated to school by a part of the students (particularly students in the secondary education), during the physical school closure.
- ✓ According to the information provided by the teachers who carried out activities with the students, throughout the physical school closure, almost three quarters of them say that they conducted activities according to the schedule, a tenth that they covered at least half of classes and below 1% that they covered less than half of classes. The teachers who said that they covered a higher share of the school classes come to a greater extent from urban schools. Furthermore, the research shows that the factors that influenced the development of activities depend, mainly, on the teacher (teaching experience, TIC competences), the age specificity of the students (autonomy, motivation, involvement in learning) and the school context (opportunities and technical support provided by schools).

2.4. Coverage of the school curriculum in distance/online learning

- ✓ Almost half of the responding students say that distance educational activities were organized in most subjects, and 35% in all subjects. One of five students report the fact that distance

teaching activities were carried out only in certain subjects. It is mostly the 8th and 12th grade students, where distance learning targeted to a greater extent only some subjects (those relevant for national exams).

- ✓ According to the data provided by the teachers, approximately three quarters of teachers in the primary education covered almost fully the school curriculum in Communication in Romanian/Romanian language and literature (respectively mother tongue) and Math and environment exploration/Math by the end of 2019-2020 school year. Thus, in primary education, the curriculums on other subjects were partially covered.
- ✓ Just over half of teachers in the secondary education and high-school covered the school curriculum almost fully. Similarly to primary education teachers, those teaching in secondary education and high-school have, in the school year 2020-2021, a significant share of recovery activities in working with the students.

2.5. Participation monitoring, evaluation and feedback activities provided to students

- ✓ Most parents said that the teachers and educators fulfilled, during the organization of distance learning, the tasks related to checking the activity and online presence of the child, communicating the schedule or providing study materials, in all subjects or most of them. The profile of those with a rather positive perception on how the distance activities were carried out is the following: salaried employees or homemakers, with preschool or primary school children and who attend school in the rural area, with primary education level or unschooled.
- ✓ According to most surveyed students, the teachers used various ways to organize and monitor the educational activities: checking presence in synchronous online activities, transmitting the activity schedule/program, informing about evaluation for class completion, delivering support and feedback in learning, discussing rules for carrying out the online lessons and those related to safety on the Internet (less frequency is noted in the case of the high-school education level).
- ✓ Four out of five surveyed teachers said that a permanent monitoring of learning was carried out. The most often used method was constantly checking the homework of each student. Nevertheless, the research shows that approximately 10% of the teachers checked the work tasks randomly. Encouraging self-evaluation and inter-evaluation at students' level, based on criteria established by teachers, was used in few situations, mostly in upper secondary education.
- ✓ Distance learning was a challenge for principals in terms of monitoring the students' and teachers' activity. They indicated in a significant share the lack of necessary tools (for instance, tools for the teachers' evaluation and self-evaluation, for assistance in online lessons), as well as proper training contexts for certain competences in this field.

2.6. Collaboration between school stakeholders

- ✓ For parents, the main support factors for distance educational activities were the homeroom teacher/teacher/educator, the subject teachers, respectively the school management. The profile of those who consider that they received insufficient support during the school closure is the following: have a slightly higher average age, live in county seats or the Capital city, have higher education, have high-school children.
- ✓ Most teachers indicated that they collaborated with peers from their own school institution, in view of organizing and carrying out teaching activities during school learning (70%). Moreover, almost half of the teachers said that they collaborated with other teachers outside of their school (professional networks, groups in training courses, etc.). Collaboration with

teachers from other schools was a practice reported more frequently by teachers with full-time professional degree/teaching degree, compared to junior teachers.

3. Digital competences for the development of online learning activities

- ✓ The research data enabled the identification of conclusions regarding the digital competences required for carrying out online learning activities. Thus, according to the teachers' responses, 40% of them say that they did not use applications for collaborative communication during homeschooling, while only 10% used applications in learning activities with the students (for instance, Geogebra, Kahoot, Padlet, Livresq, Socrative, Menti, Canva etc.).
- ✓ According to the principals' opinions, the digital skill stock of teachers in school is a relatively appropriate one to conduct distance educational activities. The principals appreciated that, on a scale from 1 to 10, the average level of digital competences of the teachers is 7.5, which means that, to a sufficient extent, they can adjust to the online teaching environment. We need to address this estimate with certain precautions, if we take the following into account: influence determined by the level of own digital competences on the formulation of this overall evaluation; variety of digital competences that the teachers may have (for instance computer or digital equipment skills do not automatically mean the competence of identifying or developing open educational resources or using certain platforms or educational applications).
- ✓ The research emphasized the need to develop digital competences also by the high number of teachers who asked for support in conducting the online activities. According to the principals' data, even though the demand for support was high, only approximately half of the school provided the teachers with a resource person with relevant digital competences, that would support them in carrying out the online activities. For the teachers in the rural environment, this support was even more rarely provided.
- ✓ One of two principals indicate the fact that the schools facilitated the teachers' participation in training sessions, webinars for the development of the digital competences required for the organization of the learning activity in the virtual space. The support provided consisted, however, mainly in facilitating access to information about training opportunities at local, county or national level and, to a limited extent, registration in (online) training programs.
- ✓ Approximately a quarter of the teachers say that they do not have sufficient experience in working with various online tools and applications, a similar share having also the teachers who said that they experienced professional discomfort in the interaction with the students in these contexts. The analysis of the research data indicates that the main competences that need to be developed relate to: projecting/adapting the activities for the online environment and structuring the online learning activities (balance between synchronous/asynchronous); identification, use and development of educational resources, including open educational resources (REDs); working on learning platforms; use of digital tools in formulating feedback/evaluation; engagement, stimulating the students' motivation and autonomy in participating in online activities.
- ✓ Even though the students reported very rarely difficulties related to their digital competences in the participation in online activities, more than a third of the teachers believe that some students in the classes they worked online with did not prove sufficiently developed digital competences, that would enable them to autonomously use the various tools and applications - especially in the rural area and the primary and preschool education levels.

Recommendations

- ✓ Encouraging/stimulating the teachers to carry out remedial education activities for the students who do not participate or participated to a small extent in distance learning activities, organized during the school year 2019-2020; special attention must be given to the initial evaluation period, in the school year 2020-2021, to identify learning losses and substantiate the remediation plan.
- ✓ Providing the necessary equipment for all students, preferably a computer or laptop, as the phone has limited functions for the deployment of the schooling activity, including proper connection to the Internet; equipment allocation must take into account, as a priority, the children in disadvantaged groups (students in the rural area, from families with low socio-economic level, those in vocational/dual education, from the North-East, South-West regions, Bucharest-Ilfov). Moreover, it is necessary to ensure the training of students in the use of various devices and online tools for learning purposes.
- ✓ Interventions that counterbalance the lack of face-to-face contact with peers and teachers, and that support the students from a socio-emotional point of view, during the following period, once classes restart (open-air activities with peers, dedicated group counselling classes, discussions with parents, etc.).
- ✓ Developing framework regulations at national level and regulations adapted at the level of each education unit with regard to the educational activity for the year 2020-2021, adjusted to the needs, requirements and resources of each school.
- ✓ Continuing the investments in the training of teachers in the field of digital competences and the use of new learning technologies, through: specific training courses; introduction of a digital competence module in each training course, centered around its theme; online training sessions on the use of online applications.
- ✓ Stimulating the teachers' participation in trainings and other training activities in the field of class management in different activity contexts (face-to-face, online).
- ✓ Promoting professional training models at the workplace, through mentoring, tutoring, for junior and unqualified teachers.
- ✓ Stimulating/encouraging investments for access to the Internet/TIC equipment, especially in rural schools/households.
- ✓ Developing the offer of Teleschool programs, addressing all levels of study.
- ✓ Achieving portals/platforms with open educational resources for each curricular area/study subject, to be used in both face-to-face and online learning.
- ✓ Introducing topics that explicitly target the creation and use of open educational resources in the continuous training programs for teachers.
- ✓ Developing teaching practices that encourage and promote autonomy in learning and alternative student evaluation methods, applicable in various contexts of organization of the teaching process.
- ✓ Stimulating self-evaluation and inter-evaluation at the students' level, with focus on collaboration and inclusion, in view of developing the competence of learning to learn.
- ✓ Developing the role of CCD and CJRAE as educational support and counseling factors at county/local level.
- ✓ Developing ways to collaborate with the students' families and giving them support for the roles they have in the distance learning process.

- ✓ A systematic analysis of the causes for which more than 240 school units (according to the answers of 4% of the principals participating in the research) did not organize activities with the students during the physical school closure period, is required.
- ✓ Developing training programs and proper learning resources, addressing the principals/management teams at the level of educational units, on the management of the organization of distance learning activities, including: a) development of general competences to ensure a school culture that systematically promotes the use of the new technologies in learning and activities in online format, not only as an alternative to face-to-face learning, but as a complementary component of it; b) coordination of the school learning platform development process, identification of the preparation needs of all its users (students, teachers, support staff, parents) and monitoring the efficacy and efficiency of the entire process.
- ✓ In particular the principals in the rural area, who also manage school-structures, must be supported to organize distance learning activities at their level, in the context of the limited access to digital resources and virtual platforms for learning, a situation corroborated with the lower interest in the development of TIC competences for the teaching staff.
- ✓ The socio-economic dimension of learning is equally important as the cognitive dimension, while the research data indicate that the risk of experiencing delays in learning is not the only risk that the students faced during the pandemic period. The management teams must collaborate with psychologists, social workers or experienced staff in the proper organization of the online learning schedule, with a good balance between various categories of teaching-learning-evaluation activities.
- ✓ Supporting children from families with low education level (families who also cumulate other types of socio-economic disadvantages), families who cannot get involved to help their children, or in the use of equipment and applications necessary for learning, or improving the knowledge gained from lessons and fulfilling school tasks; this support can be given including by development by the teaching staff of remedial activities with the children, but also development of minimum digital competences for parents, particularly the parents of preschool and primary school students.