Chapter 16

Supporting Elementary and Secondary Education During the Pandemic: A Case Study from the National Research University Higher School of Economics

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Abstract The COVID-19 pandemic has presented a formidable challenge to the Russian school system. Such global challenges and crises highlight the significance of the National Research University Higher School of Economics (HSE)'s third mission: responsibility for the well-being of the community.

As one of the first universities to offer support to elementary and secondary education systems in Russia during the pandemic, the HSE relied on its ability to create new scientific knowledge and make it useful in practice to provide versatile and targeted aid for students, teachers, regional administrators, and parents across the country. There were two main vectors of HSE activity at the time of the pandemic: (1) promoting the development of the Russian education system through research, monitoring, and coordination of scholars and analysts and (2) direct work with secondary and high school stakeholders using contemporary approaches for talent development and digital tools.

The pandemic revealed the importance of developing new areas of research and analysis. In line with the first vector, the HSE focused on:

- Monitoring and studying the situation and collecting and promoting university and school case studies on organizing work during a pandemic
- Leading and participating in professional reflections and discussions regarding experiences and training practices in the context of a lockdown

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The institution organized an array of surveys with students, teachers, parents, and representatives from regional and municipal education organizations and analyzed the results as quickly as possible. The main areas of research were problems of educational inequality and digital transformation. Based on the collected data, the Institute of Education managed to publish more than 30 analytical works between April and June of 2020.

For the second vector, the HSE developed programs that seek to expand its geographic reach, implement flexible recruitment, and digitize communication with school students. Such programs aimed at:

- Training personnel while consulting with administrators and educators on the technological and legal aspects of the work of schools.
- Providing online instruction and assistance for students learning software tools and preparing for exams.
- Helping parents arrange support for children in the transition to distance learning.

For this period, the HSE quickly and effectively expanded cooperation with schools in Moscow and regions around Russia that the institution developed over the last 15 years. Key current projects working in this direction are:

- The HSE School District
- The Lyceum Distributed Schools
- The Higher Students Academy
- The Higher School for Parents

16.1 Introduction

The COVID-19 pandemic presented a formidable challenge to the Russian school system. Most schools have shifted to remote learning. Under these conditions, some students face barriers to access, and most of them have seen a reduction in the quality of education. An important factor in making it possible for schools to meet this challenge has been the support provided to them by institutions outside the school system. The nature of the challenge pushed schools in the direction of greater openness. On the one hand, schools and teachers looked to bring in external resources. On the other hand, various stakeholders, such as civic organizations, volunteers, and universities, came to the schools' aid. The united efforts of federal and local governments, extraordinary work by teachers and school administrators, collaboration among teachers, and participation of parents have combined to help schools weather this difficult time.

The National Research University Higher School of Economics (HSE), a large research university, moved the programs for tens of thousands of students, as well as administrative processes, online. Thousands of personnel in Moscow and at branch campuses in three other Russian cities contributed to this effort. Nevertheless, the HSE did not focus solely on its own challenges but actively participated in supporting the Russian school system. This support involved direct aid to schools,

teachers, students, and their families through various training and methodological support programs, studies, and consulting projects as well as hosting discussion forums. Both faculty and students, including volunteers and alumni, contributed to these projects.

This case study demonstrates the role that a major national university plays in supporting elementary and secondary education in Russia during a pandemic. This study lays out the specific strategy adopted by the HSE reflects its status as a research university and reveals its greater mission and the role it plays in the Russian education system.

We look at how expertise, standards, and practices developed in the university, including modes of collaboration within the institution and with outside partners, aided the execution of this strategy. New solutions and approaches developed during the pandemic, considering their collaborative context, their effectiveness, and their prospects for future use. Special attention is given to integrating the experience of the pandemic into the HSE's future strategy in supporting elementary and secondary education, especially in terms of topics for future research and analysis. Overall, we seek to answer the question of how the university acted to fulfill its "third mission" during the pandemic.

16.2 The Higher School of Economics: Strategy and Groundwork to Respond to the Challenge of the Pandemic in Elementary and Secondary Schools

In this paper, we can see some of the vectors of HSE activity related to supporting schools at the time of the pandemic. Globally, it makes sense to look at the pandemic as just one phenomenon within a larger trend toward an age of increasing uncertainty. For this reason, the university's actions during the pandemic, including in the field of K-12 education, can be seen as a test of whether the chosen vectors of development are on the right track and of the university's readiness to act on them.

The *HSE* is the largest hub for social and economic research in Russia and one of the top-ranked higher education institutions in Eastern Europe (ranked in the top 3135 of the QS "Top 50 Under 50" ranking and the 57th of the «THE Young University Rankings»). Today, the HSE unites 4 campuses that employ 7000+ research and teaching faculty and enrolls 45,000+ undergraduate and graduate students. The HSE's academic portfolio numbers 270+ degree programs and 60+ PhD offerings, along with 170+ MOOCs that enroll 3+ million students from 190+ countries. There are no bachelor-level programs for teachers at the university; however, the institution offers master's degree level programs for teachers, principals, and district administrators.

In Russia, most universities are teaching universities, yet, while the HSE offers hundreds of bachelor's and master's programs, the university's mission is defined by its status as a research university. R&D is conducted at the HSE by 90+ research

centers and 30+ international laboratories. The Higher School of Economics has the top QS Ranking in Education in Russia, and it is regarded as the most significant contributor to evidence-based education reform and the improvement of national education policies in the country. The HSE's development strategy for research activities aims to broaden the impact of its research and increase its contribution to social development, including in the field of education. It seeks to spread the appreciation of new knowledge and the wide adoption of new techniques and technologies. There are several fields, including education, in which the HSE's mission both conduct this research locally and distribute it globally, integrating Russian research into the global conversation.

In addition to academic research, the HSE monitors studies in key areas of economic and social development and carries out analytical work for the Russian Government, the President of Russia, the Federal Assembly, and federal ministries and agencies. In 2020, the university instituted a new HSE Development Program, in effect until 2030, based on a structure of providing solutions to the most difficult challenges that Russia faces.

16.2.1 First Area of Support

The first area of the university's contribution in the context of the pandemic involved assisting the Russian education system through conducting research and monitoring and coordinating the work of scholars and analysts.

Launched in 2012, the HSE's Institute of Education (IOE) takes the lead in education research both within the university and in the country. The IOE's team comprises 250+ faculty, visiting professors, junior staff as well as 15+ centers and laboratories. Several large-scale education studies by the HSE are closely linked to issues that are central to the pandemic's impact on education.

One area of academic contribution is that of education inequality research. While this is a main topic of international research and education policy, it received only peripheral political attention in Russia for many years and lacks priority in education-related studies. The HSE has been purposefully promoting this direction for research, including developing international cooperation in this field. HSE publications on schools working in difficult conditions, the impact of social status on education outcomes and trajectories, and academic resilience have started to change this situation in recent years. The HSE engages in advocacy on these issues in the Russian political arena.

Another high-priority topic is that of digital transformation in education. The university quickly embarked upon a wide range of studies covering all levels of education, including K-12. Two years ago, the HSE launched a laboratory for the digital transformation of education.

The university prioritizes building wide-ranging partnerships with various stakeholders in the education system: public authorities in regions and municipalities, teacher training centers, private companies, and youth development institutions.

For example, HSE partners with leading Russian EdTech companies such as Yandex, Skyeng, UchiRu, and GlobalLab. The university consulted for some of Russia's most populous regions on topics of strategic development and education policy and developed several projects to support regions in their efforts to improve the quality of education.

Overall, the university is geared toward producing and applying new knowledge for developing the country and its regions. This strategy is a key aspect of the New Flagship Model (Froumin & Leshukov, 2016). The contribution of higher education institutions to regional development is a theme that has attracted growing attention in recent years. (Arbo & Benneworth, 2007; Pinheiro et al., 2012).

16.2.2 Second Area of Support

The second area of HSE focus is working with secondary and high school students, who are also potential enrollees of the HSE, using contemporary approaches to training and schooling. The HSE's development program seeks to expand its geographic reach, implement flexible student recruitment programs, and digitize communication with students. The development program also provides guidance for schools across the country to make use of the tools created by the HSE for integrating contemporary digital technologies into their work. Forming a large network of partner schools, the university established a specialized general education department to work with schools and regional education management bodies. Its key projects are the "HSE School District," the Lyceum Distributed Schools, and the Higher Students Academy.

The "HSE School District" is a community of schools that partners with the university and aligns with its approach to education and human development. These schools create academic pathways for admission to cutting-edge universities, including the HSE, for their graduates. Within the framework of partnering with schools, the HSE develops methods for improving school quality and introducing the latest educational technologies and organizational solutions.

The HSE lyceum opened as a part of the HSE to create individualized education pathways for 10th and 11th graders. As a result of the growing interest of students and their parents in the educational technologies of the lyceum, specialized lyceum classes and groups opened in 29 schools in Moscow and one of the regions ("HSE Distributed Lyceum School"). The "HSE Lyceum Distributed Schools" is an opportunity for high school students in Moscow to enroll in HSE Lyceum programs and in specialized tracks governed by HSE standards while attending other schools. The "Higher Students Academy" is a school project aimed at immersing middle and high school students in the research environment of the university for several years, leading up to admission. Academic support for school students is provided by university professors.

The HSE recognizes the value that parents' involvement can have on a young person's education and gives special attention to this phenomenon in both its

research and its practice-based projects. The final HSE initiative, “Higher School for Parents” project, supports parents in helping their children make good choices in educational and professional contexts. The HSE is one of the first Russian universities to implement wide-ranging volunteer programs. Its activities are coordinated by the Volunteer Center, which is part of the Center for Supporting Student Initiatives.

An important question to ask in the pandemic context is: what groundwork (knowledge and expertise, partnerships, networks, etc.) was already in place in the vectors of development that would become relevant during the pandemic when these dramatic events began to unfold?

16.3 Supporting Elementary and Secondary Education During the Pandemic: Context, Content, and Organization

16.3.1 Russian Schools During the Pandemic

Most countries were forced to take extraordinary measures to maintain their education system, keep classes going at all grade levels, and prepare students for college admission tests. Russia was no exception. In March 2020, students received a two-week suspension of classes, after which most school buildings in Russia (over 40 thousand) were closed. Most school students (approximately 15 million) transitioned to distance learning. This led to cancelling mandatory exit exams for ninth-grade graduates and postponing the USE (Unified State Exam) and reinstating it under augmented rules. The school year in Russia ended in May, with the next school year scheduled to start September 1st.

The federal structure of the state, and the specific way in which power is divided among levels of government, influenced the Russian education policy response to the challenge of the pandemic. Unlike many Asian and European countries, Russia did not create a centralized mechanism for organizing distance learning during the pandemic. Several methodological recommendations were issued at the federal level but left the decision-making to the regions.

The range of decisions made at the regional level was quite broad. The bulk of the responsibility for consulting and supporting the work of teachers lay with the regions, specifically with region-wide institutions of professional development and methodological support. However, in many regions, these institutions were not prepared to quickly scale up operations or offer quality support. In these circumstances, the resources that universities were able to bring proved very significant. The Higher School of Economics was one of the first universities to offer support to schools and, more broadly, systems of elementary and secondary education.

16.3.2 HSE Activity During the COVID-19 Pandemic

The HSE's support for schools and school systems during the pandemic can be broken down into two categories. The first category involves conducting *research and analysis* and transmitting the knowledge gained to both practitioners and politicians, including:

- Monitoring and studying the situation and collecting and promoting university and school case studies on organizing work during a pandemic
- Leading and participating in professional reflections and discussions regarding experiences and training practices in the lockdown context

The second category is that of *practical aid to schools, their personnel, students, and parents*, including:

- Training personnel while consulting administrators and educators on the technological and legal aspects of schools
- Providing online instruction and assistance for students learning software tools and preparing for exams
- Helping parents arrange support for children in the transition to distance learning

The coordinators of the main areas of work were the following HSE units: the Institute of Education, the General Education Department, and the HSE Student Initiative Support Center. Overall, the vice-chancellor for New Recruitment carried out coordination at the university level. The activities of the HSE during the pandemic concerning school and after-school education involved approximately 100 employees (professors, analysts, researchers, and consultants) and 30 volunteers.

16.3.3 Practical Work at the Level of K-12 Education: Support for Schools, Teachers, Students, Parents

The HSE further supported the education system during the pandemic by expanding cooperation with schools in Moscow and other Russian regions in a relationship developed over the last 15 years. Established relations with schools allowed the programs of school support to be put into action quickly and effectively. Most of the HSE's activities with schools and young people were successfully moved online, except for special events that were regularly held in regions outside Moscow. During the pandemic, the "HSE School District" project provided distance support to 18 schools in Russian regions. Volunteer tutors provided individual and group lessons in nine school subjects for more than 100 students using memorization techniques and time management basics. Online career guidance and planning meetings were offered for some schools.

The university traditionally runs large-scale advanced training programs for teachers and school leaders of the “HSE School District.” All advanced training courses were quickly transferred to an online remote format during the pandemic. The traditional 2020 Summer School offered 11 training areas, in which 450 teachers were trained free of charge. The HSE offered psychological safety programs and other new courses.

All online courses offered during the pandemic made use of the HSE’s digital education and training platform. A total of 76 faculty members from 11 HSE departments were involved in teaching, 35% of whom had not offered courses before. During the pandemic, 579 students of the “HSE Distributed Lyceum School” were provided with online training by the university’s teachers. Lyceum’s 44 teachers were also supported by distance learning technologies.

Along with the General Education Department and volunteers, the Institute of Education provided its resources in support of schools, their administrators, and teachers. At the start of school closures, professors, students, and alumni of the Education Management program in partnership with the International Education Club arranged an online conference called “A Day in the Life of a Mobile School” on March 24, 2020. The administrative track of conferences, which had 7700 viewers, included workshop sessions with leading experts, school principals, and leaders of digital transformation. The track for teachers (11,500 viewers) offered workshop sessions and practical exercises.

The Institute of Education created the website “Distance Teaching,” where Institute of Education experts gathered virtually to comment on schools’ ongoing transition to distance learning, examine case studies, and discuss issues of concern. The “Online Law” channel was also launched on YouTube to explain the numerous legal conflicts that arose in the process of educational institutions’ work during the suspension of classes, including specific requests from the audience the channel covered 12 issues and had a total audience of 20,818 people.

In addition, traditional forms of instruction at the “Higher Students Academy” were replaced by online classes in a Minecraft model of the campus. In a game popular among school children, HSE students designed a virtual model of the campus online in Minecraft to remind students of the HSE campus in the Moscow region where the traditional Academy and associated projects are usually held. The virtual campus completely resembles the real campus both inside and out. Professors, volunteers, and students conducted online classes in various subjects. For two months of work, over 1000 students joined the classes from more than 15 cities, and towns of the Russian Federation, participating in more than 200 lessons. Schoolteachers were provided with the opportunity to connect and observe the methods of working with students. The Academy’s presence on the VK social network, a newly launched Instagram channel, and the YouTube channel “Holidays in the Higher Students’ Academy,” provided interaction with participants.

The pandemic requires a significant increase in parental involvement in school students’ education, entailing a significant burden. Trying to make resources available to this group, the Institute of Education posted YouTube video tutorials for parents (five issues with a total audience of 4577 people). The General Education

Department implemented the “Higher School for Parents” project, comprising 11 online parent-teacher meetings with 54,400 views.

16.3.4 Analytical and Research Work

The pandemic revealed the importance of developing new areas of analysis and research. The following types of monitoring and research were deployed as quickly as possible:

- A survey as part of the international study “School Barometer” (277 education management bodies, 1111 representatives of school administration, 11,788 teachers, 22,080 students, and 34,963 parents)
- A questionnaire survey of teachers (4500 teachers from 85 regions of Russia)
- Interviews with teenagers and parents at HSE partner schools (2500 people in 15 regions of Russia)
- Expert interviews with the representatives of regional and municipal education authorities (15 interviews from 11 regions)
- An internet survey of 18,270 parents and 15,520 children, 620 administrators, and 5331 teachers from all federal districts about the transition of extracurricular education to distance learning during the pandemic.

In addition, the HSE analyzed the management practices of regions, schools, after-school programs, and teachers. The Institute monitored publications in the media and social networks and gathered data from providers of digital educational services and platforms. The HSE quickly analyzed the collected data to answer the following key questions:

- What was the level of readiness of regions, education systems of different levels, teachers, parents, and students for the transition to distance teaching and learning?
- What barriers and difficulties did they face? What were the strategies, models, and practices used under the new circumstances? What was their comparative efficiency?
- What is the projected scale of learning loss due to the pandemic? How does the institution minimize negative impacts and compensate for those losses?
- What changes in the way parents work and live have occurred in relation to their absence from and participation in their children’s education? What are the children’s opportunities for additional education and self-development during a lockdown?
- How has communication between schools and parents changed with distance learning?
- How satisfied are the main participants in the education system with the new educational format? What are the positive and negative lessons?

The promptness of the analysis and the ensuing publications are noteworthy. Indeed, this level of intensity of a publication has had no analogs in “normal” times.

Since May, the HSE publishes a bulletin on the impact of the pandemic on social and economic sectors and included articles on the “Pandemic and Education.” For immediate placement on the HSE website, the institution created a “Remote Supervisor” section with opt-in emails and an optional question-and-answer section. It aggregates developments in instructional and methodological materials on transitioning to distance learning formats as well as news and experiences in the practical application of online schooling formats (20 issues). The “Education under Pandemic Conditions” page was created on the website of the Institute of Education as a place for briefs and extra editions of “The Facts,” “Modern Analytics of Education” and other publications.¹ Their total number exceeded 30 issues between April and June.

The publications covered topics such as Russian platforms and services for distance education; knowledge assessment and exit exams under pandemic conditions; the readiness of regional school systems to face the challenge of the pandemic; the transition of regional school systems to distance education; the transformation of after-school education practices for children; legal regulation of wages and paid services in schools under labor restraints; additional topics related to viruses and epidemics and education standards; distance education in school; extracurricular organizations for children; and changes in teenagers’ lives and study habits.

16.3.5 University as a Communication Hub

In the situation of the pandemic in Russia, methodological support for schools and teachers from the federal government was very limited. This was partly due to the division of powers between the federal center and the regions. Nonhierarchical models of aid, strategies of interaction, and mutual assistance proved effective for combating the issue. The scale and novelty of the challenges created a new demand in the professional community for an exchange of views and discussion on various aspects of the education process. The HSE arranged and actively participated in such events.

A regular open workshop from the Institute of Education naturally transformed into a webinar and became an important communication platform. Webinars discussing the impact and lessons of the pandemic for education were held with the participation of leading HSE researchers and experts alongside colleagues from other educational and public institutions as well as experts from the World Bank. Institute of Education scholars moderated and spoke at panel discussions on the organization of schooling during the quarantine at Russia’s leading educational forum “Moscow International Education Fair” and at some discussion forums in Russian regions. A total of more than a thousand people participated in these events.

¹ https://ioe.hse.ru/distance_learning

16.3.6 Working with Stakeholders

HSE leaders regularly sent materials to the government and the president's administration, yet the Russian Ministry of Education, which recently underwent a change in leadership, did not commit to any of the research or analysis from the HSE during the pandemic. However, there is evidence that leadership and relevant departments paid attention to the HSE's results from its various studies and monitoring efforts—the government asked the HSE to prepare a pandemic report on the education system.

HSE scholars maintained communication with administrators and government representatives from dozens of Russian regions. Leaders of regional education systems responded to calls for participation in surveys on school systems' reactions to the pandemic and best practices. They noted the importance of engaging in such studies and the value of the results for administrators. Interest from the media was high throughout the period, and Institute of Education scholars were asked for comments on their efforts by leading publications and radio stations. The research and analysis produced by the Institute, as well as the dialogue with representatives of the school community, became very important factors for understanding the processes underway, predicting consequences, and building education policy.

16.4 Supporting Elementary and Secondary Education During the Pandemic: Outcomes and Lessons for the Future

Using cutting-edge digital tools, the HSE extended its knowledge, human resources, and methodological know-how to all those involved in schooling: teachers, students, parents, and principals. The HSE staff produced high-quality solutions to meet the administrative, educational, and technical challenges.

New formats for working with schools emerged through the university recruiting its students to conduct lessons and assist with homework and providing schools from around the country access to and support in using online blended education courses from the HSE Lyceum. The HSE also had direct engagement with participants in the Higher Students Academy through social networks and without the school as an intermediary. The effectiveness of the distance learning format lies in its ability to expand access, which grew steadily throughout the pandemic and widened its geographic reach. For example, the number of teachers taking professional development courses nearly doubled. Surveys of teachers enrolled in HSE courses during the pandemic revealed that 60% wanted to take part in courses via the online format. Positive responses came from school students and parents as well.

Within the framework of the Lyceum Distributed Schools project, the pandemic led to the first cooperation agreements outside of Moscow. HSE activities were not, however, limited to direct support. Other important aspects included research, consulting, and organizing communications. Indeed, the HSE's mission was not to

figure out how many schools could be supported directly but rather to engage with the nation's entire elementary and secondary education system and strengthen its ability to respond to the pandemic's challenges.

In addition, the pandemic tested HSE's readiness to successfully implement the strategic directions stated in the Development Program and Mission of the university, such as contributing to the development of regional education systems, including support of schools and students in the regions as well as expert and analytical support of educational policy in the country. At the same time, previous undertakings in these areas, as well as in the areas of "leadership in the digital transformation of education" and "participating in global processes" become crucial for the task of promptly providing comprehensive support for the entire education system and for specific target groups to ensure effective work in the context of the pandemic. These undertakings included:

- Extensive research and development helped interpret the unfolding processes and provide consultations to officials and practitioners
- Databases of statistics, international studies of education quality, and human and organizational resources to monitor research and surveys for quickly estimating and forecasting events
- Collaboration with leading universities and international organizations—that ensured prompt exchange of data, firsthand experience, assessment of pandemic impacts, and cooperation in establishing monitoring, research tools, and recommendations
- Partnership relations with regional education management bodies and educational institutions (including modern models of consortiums and school networks); alumnus communities, which enabled the quick collection of data and best practices; and the involvement of practitioners in consulting, methodological work, and professional development programs
- Participation in drafting the national educational policy agenda and extracurricular education based on evidence-based research

Furthermore, the HSE's educational research strategy proved effective in the domain of education inequality. The pandemic allowed many politicians, and society as a whole, to see differences between learning environments at home, which, in times outside of the pandemic, were ignored. The crisis clearly showed the role (actual and potential) of the school in equalizing opportunities and compensating for the deficit of family resources. As stated by HSE researchers have written about in their reports publications, this compensation is not only in terms of education but also in terms of basic needs, including nutrition, safety, and psychological support. These differences are related to the geographical location of residences (access to the Internet), the material well-being of the family (computer, workplace), and cultural and parental involvement in education. These factors determine the nature of education, its quality, and its outcomes.

No information or data on children and families existed to use for rapidly identifying risk groups and including them in support measures, thus HSE has established precedents for analytical work in this area (see Box 16.1).

Box 16.1: Project: Social Impact Bonds. Improving Education Outcomes in the Republic of Sakha (Yakutia)

(<https://b36.pf/en/agent/sib/>)

Since 2019, the Institute of Education has been conducting Russia's first-ever social impact bond project in the Khangalassky District of the Republic of Sakha (Yakutia), incorporating 27 schools. Social impact bonds (SIBs) are a financial instrument that involves multi-stakeholder agreements between a public authority, investors, and providers of social service.² The bond is paid out to investors only if a given result is achieved within the agreed-upon time-frame. The project aims to improve academic achievement among students and overcome existing inequalities. It includes training teachers in contemporary teaching methods, summer schools for underachieving students, seminars for increasing parent participation and understanding, and other initiatives. During the project, a large dataset was collected on the socioeconomic status of students' families, the conditions of their education, and academic outcomes.

At the start of the pandemic, data were collected about whether students and teachers in the district had devices that could access digital platforms and services, along with the speed of internet connection. The data reflected the level of the district's preparedness for the transition to online learning. With the help of these data, the institution assessed the scale and character of the digital gap between groups of students and groups of schools with varying socioeconomic backgrounds (Zvyagintsev et al., 2020). It was significant. Based on this analysis, the university made recommendations for optimizing methods of teaching during the critical period leading up to the end of the school year and preparing for the start of the new school year, together with a long-term plan for overcoming education inequality.

The digital transformation in education is another key area of HSE research and development in the context of the pandemic. Although a few years ago, the university declared itself to be a leader in the country in promoting the digital transformation of education and started to deploy intensive research and development in this field, it was still unable to answer the questions raised by politicians, managers, and, especially, practitioners. With the onset of the pandemic, however, the university gained insights and information in real time, accelerating the institution's understanding of digital transformation in education, which was potentially more useful than several years' worth of local experimental research.

The transition of schooling to an online format proved to be an unplanned experiment in the implementation of digital tools in the learning process. Given that there was no available alternative to digital education, the experiment took place under

² Social Impact Bonds. A New Tool for Social Financing. Princeton University (2014): <https://spia.princeton.edu/sites/default/files/content/Social%20Impact%20Bonds%202014%20Final%20Report.pdf>

nearly ideal conditions. Two factors contributed to the exceptional value of this experiment. First, it included all kinds of teachers, not just those who were the most innovative and digitally literate. Second, it provided a massive testing period for large national software platforms that have yet to be fully developed and implemented. Some of the lessons learned would not have been made evident in pilot programs and would only have been encountered at the level of mass adoption, at which point it would have been nearly impossible to make significant changes to the platforms.

During the pandemic, the university collected unique data on the effectiveness of Russian educational online platforms and services, digital infrastructure of territories, and ICT competencies of teachers and students and researchers were able to confirm several hypotheses. For example, through this research, it became clear which types of services, resources, and organizational strategies (synchronous/asynchronous) were the most in demand under the conditions of the pandemic. Institute of Education researchers ascertained areas of deficit, such as in infrastructure and training, that acted as barriers to implementing digital technologies.

The challenges of the pandemic pushed forward some of the HSE's inquiry into some issues, which were being investigated prior to the pandemic, and shifted its priorities for the future. Indeed, researchers at universities are already formulating several new directions for research on digital education inequality and interface design for digital education platforms. These questions on interface design range from broad inquiry into factors that contribute to successful platform use, such as level of complexity and user-friendliness, to more specific questions about the effectiveness of various digital tools, services, and technologies for completing different assignments in individual subject areas.

Another lesson from the pandemic is the recognition of a need for the HSE to transition from a broad vision involving the recruitment of allies and promoting the bright future of digital education to a more specific focus on solving concrete problems faced by teachers through based on data assessment and targeted recommendations (see Box 16.2).

Box 16.2: The “Innovation Ambassadors” Project

The HSE's Institute of Education planned the launch of the “Education Innovation Ambassadors” project, a research collaboration with school communities, with the first study was planned for March 2020. The University did not defer or cancel the project but instead worked quickly to develop an additional survey related to schools' transitions. The questionnaire was supplemented with the methodologies of the “Technology Readiness Index 2.0” and “The Innovation Environment in Schools” (Innova), which measure organizations' potential for digital innovation. The individual profiles created for teachers and schools were a key achievement of the institution's analysis of the school system's transformation.

(continued)

Box 16.2 (continued)

A major benefit of the Education Innovation Ambassadors project is that the university does not simply keep the data for HSE's research but gives it back to the schools—one hundred schools received individualized reports and recommendations. The feedback the HSE received from school principals indicated that the reports were very timely, allowing school leaders to reflect on the experience of the pandemic and make sense of both the successes and opportunities for growth in their school. During the pandemic, much of the effort was directed toward providing material and technical support. Now, it is important for schools to create an environment in which the digital tools they procured can be used effectively. In other words, teaching staff must take a creative approach to unlock the potential of these tools (Khavenson et al., 2020)

16.5 Conclusion

There is every reason to believe that the challenges created by the pandemic will have an impact on the research agenda of the Institute of Education, bringing attention to research on the digital divide, psychological well-being, learning autonomy, and agency.

Reflecting on the experience of supporting schools during the pandemic, we can reaffirm the importance of creating specific mechanisms for organizing work around primary vectors. In addition to lessons learned in specific areas of research, the experience of supporting schools during this period stimulated the consideration of creating a set of primary research vectors at the Institute of Education; primary research vectors bring a concentration of research efforts to solve major challenges and gaps in the institution's understanding of these issues. Such challenges require an interdisciplinary approach. Primary research vectors are influenced by the strategy the university has in place for meeting the needs of key stakeholders, including the professional community and parents. By concentrating efforts around primary topics, the HSE attempts to accelerate the process of bringing solutions to the public and making a tangible contribution to improving the education system.

Additionally, we can reaffirm the initial vector choices: inequality and digitization. HSE expertise and methodological resources were in great demand during the most acute period of the pandemic, and it seems that this demand will continue. The work during the pandemic also strengthened HSE's reputation within the EdTech business community. The university noticed a growing interest among providers of digital education resources in working with the university. They see the HSE as a bridge to the education system and as a collaborator in overcoming the gap between tech companies and the education community.

Of course, the scale of the pandemic challenge and its novelty reveals the limitations of any such undertaking. The response required serious organizational and management efforts on the part of the HSE's administration, as well as the institution's mobilization, creativity, and staff involvement. The timeliness of the university's management response to the pandemic was important as was the objective assessment of the nature of the challenge and its relationship to the university's strategic objectives and areas of competency.

It was necessary to introduce new positions of coordinators in different areas of work and develop plans and regulations for monitoring each area. The complexity of the problem of organizing the teaching process during the pandemic tested the strength of existing channels of communication between different parts of the university. A collaboration between the General Education Department, the Center for Supporting Student Initiatives, the office of career development, and the office for serving gifted students organized the volunteers that made the HSE's work with school students possible. The Faculty of Communications, Media, and Design provided recommendations, installation, and support for the technologies that allowed the General Education Department to scale up the "Vyshka for Parents" project. The General Education Department also assisted the Institute of Education in carrying out surveys through the network of partner schools.

However, the pandemic also revealed a need for improving the model of cooperation among various divisions of the university that are involved in working with schools. Foremost here is the relationship between the Institute of Education and the General Education Department. This reform should begin immediately, as the start of the new school year will mean even greater demand, coming from both regions and individual schools, for the university's consulting and curricular support.

In addition, the current situation has provided justification for the transformation of the HSE's model of communication and media activity, conducted over the past two years, including changes to the site and the creation and promotion of a social network presence. This allowed us to promptly inform the public, receive a greater volume of feedback, cover a broader audience, and consider the broad needs of the country. Noted above, the HSE's system of communication at the time of the pandemic's onset, coming after the upgrade, had considerable potential; new decisions were made to create dedicated sections and pages of the site and introduce new publication formats, with particular attention on visualization and the use of infographics. Individual units and employees took the initiative by creating their own channels on YouTube and actively engaged their social networks with specialized posts.

The scope and intensity of the university's communications with the professional community in the Russian regions have increased significantly during the pandemic. New communication formats and technologies are being used, including events such as the aforementioned online marathon, video consultations with the staff of the Institute of Education, and hotlines with teachers and parents. These technologies have demonstrated their potential for expanding audience coverage, segmentation, and a targeted orientation of communications. At the same time, the situation of the pandemic has clearly demonstrated both the possibility and the need to build

a new digital interface for regular interaction with target groups, considering the idiosyncrasies of Russian geography.

Today, as the HSE develops road maps for implementing the Development Program for 2030, the lessons learned from the HSE's support for the school system during the pandemic include the following:

- Maintaining the online format for some of the HSE's teacher training courses, transforming the digital learning environment to support partner schools, and aiding in preparing target groups of students
- Expanding the network of partnerships with schools, not only with high-performing schools but also schools facing challenges
- Strengthening research on the digitalization of education, as it relates to educational inequality under new learning conditions, digital lessons, digital tools for standardized testing, and student agency; on the integration of the experiences and reflections of practitioners; and on the promotion of active research
- Collaborating with leading universities and international organizations, ensuring swift exchange of data and firsthand experience of the pandemic's impacts, which is critical for rapid and effective response
- Continuing the transformation of the institution's model of communications and media activity; disseminating knowledge to ensure audience coverage; and accelerating the feedback loop

The experience of the pandemic provides a great number of lessons to be applied in the future development of the HSE. However, the key lesson not only applies to the university's internal affairs but also resonates with a broader discussion of how the model of the university should evolve in the twenty-first century (Douglass, 2016). Global challenges and crises highlight the significance of the university's third mission: responsibility for the well-being of the community. The success of this mission hinges on the university's ability to create new scientific knowledge and bring it to practical application. The ways in which a given social system (in the HSE's case, elementary and secondary education) reacts to a situation of crisis are a source of knowledge and direction for the future of that system. The task of the university, then, is to create mechanisms to gather that knowledge quickly and efficiently under those conditions, use it to refine education policy, and improve educational practices.

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