

RESEARCH DIGEST

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EDUCATION IN THE TIME OF
CHANGE: RESEARCH AND EXPERT
PERSPECTIVES

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HUMAN CAPITAL INDEX: EXPERT PREDICTIONS FOR KAZAKHSTANI CHILDREN

This fall the World Bank published an updated Human Capital Index Report. This Index is a part of the Human Capital Development Project aimed at measuring the level of knowledge and skills that a child born today can acquire by the age of 18, taking into account the risks associated with education and health systems around the world.

In 2018, the Human Capital Index (HCI) value in Kazakhstan was 0.59, in 2020 it increased to 0.63. *However, the 2020 report also presents back-calculated data for 2018, according to which Kazakhstan's HCI for this period is 0.78.*

Kazakhstan HCI	2020	2018	2018 (back- calculated)	2010
	0,63	0,56	0,78	0,59

According to the HCI-2020, citizens of Kazakhstan, born in 2020, by the age of 18, will realize their potential by 63% compared to how they could perform with fully developed education and health systems (in “ideal” conditions). To compare, the global average HCI is 0.56. All data used for calculations was collected by the World Bank before the COVID-19 pandemic.

HCI component	Boys	Girls	Overall
HCI	0.61	0.65	0.63
Probability of survival to age 5	0.99	0.99	0.99
Expected years of schooling	13.6	13.8	13.7
Harmonized test scores (в 2020 году использовались результаты PISA 2018)	411	422	416
Learning-adjusted years of school	8.9	9.3	9.1
Adult survival rate	0.78	0.91	0.84
Fraction of children under 5 not stunted	0.92	0.92	0.92

We should note that in 2018 Kazakhstan was ranked 31st out of 157 countries in terms Human capital index. In 2020, the Index includes 174 countries, but the World Bank has abandoned the official ranking, rather dividing countries into groups, depending on the level of the final HCI. Kazakhstan entered the fourth group of countries out of 6, with an HCI level from 0.60 to 0.70.

As the authors note, in Kazakhstan, as in many other countries, there is a clear correlation between the level of human capital development and GDP per capita. Nevertheless, there are countries in which the level of human capital is significantly higher than what could be expected based on the level of the country's income - including the Kyrgyz Republic, Estonia, Vietnam.

Among the components of the HCI given in the table above, two assess the level of health - the survival rate of the adult population, which is calculated as the proportion of 15-year-olds who live to 60 years, and the share of children not stunted. According to experts, the growth in human capital in Kazakhstan in 2020 (0.63) compared to 2010 (0.59) is mainly due to the improvement of these two indicators. Thus, the adult survival rate in Kazakhstan is 84%, and the proportion of stunted children under 5 years of age is 8%.

As for the indicators of education, as the authors note, indicators of the quality of education have significantly deteriorated in Kazakhstan - according to the LAYS calculations, out of the forecasted 13.3 years of schooling students will master the volume of knowledge equal to only 9.1 years. For comparison, in the 2018 Index, this indicator for the Republic of Kazakhstan was equal to 11.5 years.

The peculiarity of this methodology for calculating Learning-Adjusted Years of Schooling is that, unlike the approaches of other rankings (when only the total years of study in the country are used as an indicator of education), it allows us to understand the actual amount of knowledge children will acquire while in preschool, primary and secondary education.

World Bank experts note significant inequality in the education system of Kazakhstan and alarming forecasts in due to the coronavirus pandemic. A child born in the 20% of the richest families today has a chance of reaching 64% of his potential productivity, while a child born in the 20% of the poorest families will reach only 53% of his potential.

In addition, as Harry Patrinos (Practice Manager for the Europe and Central Asia Region) commented during the presentation of the Kazakhstan results, **7 out of 10 students in Kazakhstan may be functionally illiterate due to learning losses because of the COVID-19 pandemic.** which will reduce their expected revenues by 2.9% and could lead to total economic losses in the country up to 1.9 billion US dollars per year.

For more information on the Human Capital Index and indicators of the Republic of Kazakhstan, please check the links below.

Source:

- World Bank (2020) "The Human Capital Index 2020 Update: Human Capital in the Time of COVID-19". World Bank, Washington, DC. © World Bank. <https://openknowledge.worldbank.org/handle/10986/34432>
- World Bank (2020) "Human Capital Index 2020.Kazakhstan" https://databank.worldbank.org/data/download/hci/HCI_2pager_KAZ.pdf?cid=GGH_e_hc_pexternal_en_ext

BACK TO THE FUTURE OF EDUCATION: FOUR OECD SCENARIOS FOR SCHOOLING

OECD presents four scenarios for the future of schooling to 2040 – *Back to the future of education: Four OECD Scenarios for Schooling* which is a tool to support long-term strategic thinking in education. These scenarios can help identify potential opportunities and challenges and to help us better prepare and act now. They have been constructed in a time frame of approximately 20 years, which is long enough for significant change to occur beyond immediate political cycles.

Scenario is a method used within strategic foresight that is intentionally fictional, and never contains predictions or recommendations. Participation and dialogue are indispensable to the effective use of scenarios. *Scenarios* are sets of alternative futures (usually three or four to compare) in the form of snapshots or stories giving an image of a future context. They are constructed for the purpose of learning and taking action in the present. This is achieved by generating, testing, and reframing ideas about what might happen.

The tables below cover the main areas such as Goals and functions, Organisation and structures, and The teacher workforce for the 4 scenarios for the Future of Schooling.

Scenario 1: Schooling extended

Goals and functions: Participation in formal education continues to expand. Academic certificates continue to be the main passports to economic and social success. The curriculum rises to the fore, with countries operating a common curriculum and assessment tools.

Organisation and structures: International public-private partnership powers digital learning environments. Learning resources and data are shared across countries. The organisation of instruction and student-teacher interactions remain mostly unchanged, although there is room for innovation.

The teacher workforce: More personalised learning alters the nature of teachers' work, with subsequent impact on teacher education and professional development. There is marked division of tasks and greater diversification of professional profiles in school networks, which now benefit from larger economies of scale.

Scenario 2: Education outsourced

Goals and functions: Driven by greater parental involvement, diverse forms of private and community-based initiatives emerge as alternatives to schooling. Choice plays a key role: of those buying educational services and of those, such as employers, giving market value to different learning paths.

Organisation and structures: As education outsourcing expands, traditional bureaucratic governance and system-wide accountability shrinks. Greater choice in learning programmes (length, scope, cost, etc.) provides learners with flexibility to move at their own pace.

The teacher workforce: There is greater variety of teaching profiles and working arrangements, with implications for professional and reputational status. Learning networks, such as massive digital learning platforms, bring different human resources together according to perceived needs.

Scenario 3: Schools as learning hubs

Goals and functions: Schools retain most of their functions, but new forms of competence recognition systems liberate them from pressures of credentialism. Systems are no longer based on uniformity: Local actors develop their own initiatives to realise the values they consider important.

Organisation and structures: Experimentation and diversity of pedagogies are the norm. Personalised pathways are strengthened within a framework of collaborative work. Activities are planned in the context of broader learning ecosystems, mapping opportunities across an interconnected network of educational spaces.

The teacher workforce: Knowledgeable, networked teachers coexist with diverse individual and institutional players offering a variety of skills and expertise. Strong partnerships leverage the resources of external institutions, such as museums, libraries, residential centres, technological hubs and more.

Scenario 4: Learn-as-you-go

Goals and functions: Digitalisation has made it possible to assess and certify knowledge, skills and attitudes in a deep and almost instantaneous manner. Learning opportunities are widely available for “free”, marking the decline of established curriculum structures and dismantling the school system.

Organisation and structures: Education builds on digital technology and artificial intelligence to leverage collective intelligence and solve real-life problems. Dismantling of schooling systems and repurposing of its infrastructure. Distinctions between education, work and leisure become blurred.

The teacher workforce: Difficult to envision the role of governments vis-à-vis markets and civil society. Data ownership and its geopolitical implications are key. Traditional teaching professionals vanish as individuals become “prosumers” (professional consumers) of their learning.

The goals and functions of education are complex and intertwined.

The goals of education are intertwined with the daily reality of schools and take different shapes and weights depending on each specific context. Childcare and safety are the first priority for many parents who need to balance working and family life. For others, reduced school hours can work well as long as more flexible working arrangements or sufficient social and financial capital permit them to fulfil this role outside the framework of schooling.

Education is also the means for individuals to acquire professional and personal competencies and to develop as independent citizens. This entails building the cognitive, social and emotional skills needed for a world of rapid change where students enter increasingly diverse careers. This is an enormous challenge, as schools face growing demands to provide all students with greater technical skills and an ever-growing base of academic knowledge at the same time as they are expected to help students develop careful reflection, critical analysis and diverse, creative forms of expressivity.

Furthermore, knowledge and skills acquired through schooling risk becoming quickly outdated in an age where knowledge grows exponentially and labour market expectations are diverse and rapidly shifting. Education systems need to move to the model based on lifelong learning, which allows individuals to pursue diverse learning trajectories throughout their academic and professional lives.

Finally, as the OECD experts underline, what we understand as schooling today will continue to exist in the future as long as individuals find it valuable (for academic learning and personal and civic development, care, socialisation and certification). In an increasingly networked and diverse society, the future of institutionalised education will depend on its ability to bridge different worlds, and to remain relevant to the needs of individuals and society.

Source:

OECD (2020), *Back to the Future of Education: Four OECD Scenarios for Schooling*, Educational Research and Innovation, OECD Publishing, Paris, <https://doi.org/10.1787/178ef527-en>.

Разрыв страницы

THE EFFECT OF THE COVID-19 PANDEMIC ON EDUCATION: FINDINGS FROM RECENT RESEARCH

Scientific research on the effect of the COVID-19 pandemic on education systems around the world are still at its early stages, with works mostly focusing on specific country case studies.

In their article for Economic Policy Institute, Garcia and Weiss (2020) offer relevant solutions of developing and adapting the education policies in light of the current situation. As part of future action aimed at minimizing learning losses, authors of the article point out the importance of three Rs: relief, recovery, and rebuilding. First, it is important to equip schools with all of the resources necessary to offer effective remote learning. This is important because schools do not have the capacity to address the shortage of resources on their own and would require government support.

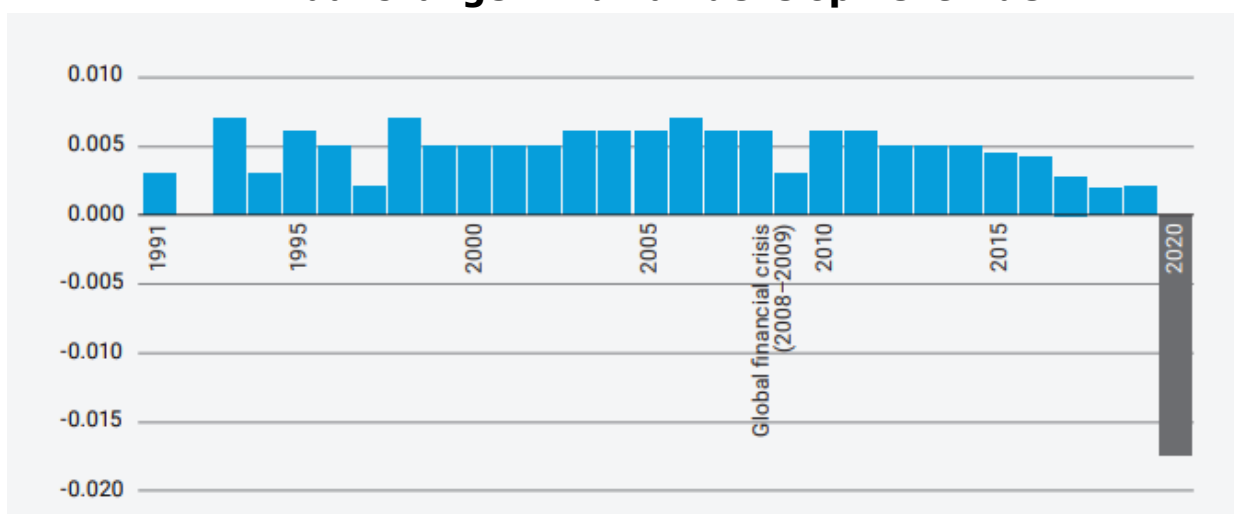
Schools also need addition investment to address the issue of gaps in learning of students, which is increasing during remote learning. The importance of filling in those gaps implies diagnostics of children and their learning needs once in-class instruction resumes. It also necessitates strategies of retaining high-quality teaching staff, increased attention to personalized learning options, socio-emotional support for teachers and children, as well as additional programs (such as summer schools) so that students have an opportunity to catch up in their learning.

Finally, the pandemic does not only pose significant challenges in education, it also offers an opportunity to critically assess the current education system and consider possibilities to improve the system in the future. It is necessary to pay attention to whole-child approach in education, which would incorporate cognitive and socio-emotional needs and skills of children while focusing on a comprehensive assessment of children skills in a way that goes beyond standardized testing. Education policy needs to consider the issue of inequity in education and also needs to be in coordination with economic policies, as effective education is not sufficient for nation-wide development.

Policy brief from the United Nations (2020) on education during and beyond the COVID-19 pandemic offers a fairly pessimistic assessment of school closures and their impact on education and future prospects of children. The expectation is that a protracted period of closures (especially with

no concrete steps of re-opening schools in the near future) will have an effect on all levels of education, from pre-school to professional-vocational and higher education. There is also a serious issue of inequity in education, within and across states. As such, approximately 40% of poorest states are unable to support education during the pandemic. Socio-economic gap can increase to up to 30% because of the pandemic. The negative effect is not limited to education, since the forecast for the human development index (HDI) indicates a decrease for the first time in its history.

Annual change in human development index



Source: United Nations (2020)

Differences in development also reflect themselves in methods of remote instruction. As most of the states worldwide decided to close schools, there was a need to select tools to provide learning remotely. Most African states rely on radio and television, while most European and Asian nations are capable of offering online-learning across all levels of secondary education.

Among the recommendations to ensure efficiency and equity in education, the United nations offer the following:

- Come with a plan to contain the spread of the virus as soon as possible in order to re-open schools in a safe manner nation-wide;
- Ensure protection of the education funding by the government, especially since the government spending has taken a significant hit globally;
- Strengthen and build a resilient education system capable of withstanding shocks in the future without significant equity issues;

- Rethink the education system, including support for the teaching profession, inclusion of access to connectivity as an important feature of education, as well as increasing flexibility across all levels of education.

A more specialized work of Fernandez and Shaw (2020) analyzes leadership in education during the pandemic. Their work focuses on three practices that offer the most effective leadership in the time of the crisis.

- Increased attention on emotional intelligence and emotional stability is quite important in the crisis period. Stress caused by sudden changes in education can affect all of the stakeholders, which increases the importance of stable leadership, which is able to establish communication with all of the stakeholders in education and offer support to overcome the challenges;
- Distribution of responsibility within the leadership team instead of a stringent hierarchy offers an effective way of tackling problems that occur in the crisis conditions;
- Openness and transparency of leadership in their relationship with all stakeholders is also quite important. Remote learning offers various communication channels with teachers, students and parents, collect feedback that would aid in decision-making.

Sources:

- Fernandez, A. A., & Shaw, G. P. (2020). Academic Leadership in a Time of Crisis: The Coronavirus and COVID-19. *Journal of Leadership Studies*, 14(1), 39-45.
- García, E., & Weiss, E. (2020). COVID-19 and Student Performance, Equity, and US Education Policy: Lessons from Pre-Pandemic Research to Inform Relief, Recovery, and Rebuilding. Economic Policy Institute. September, 10, 2020.
- United Nations. (2020). Policy Brief: Education during COVID-19 and beyond. Available at: https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf