
SCHOOL EDUCATION IN KYRGYZSTAN: READINESS FOR DIGITAL EDUCATION

FINAL PRESENTATION OF THE RESEARCH PROJECT RESULTS



Bishkek

February 20, 2024

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KNOWLEDGE INNOVATION EXCHANGE

Research project and presentation made possible through the support of the Global Partnership for Education (GPE), which implements the Knowledge and Innovation Exchange (KIX) Programme together with the International Development Research Center (IDRC), Canada

PRESENTATION STRUCTURE

1. ABOUT THE PROJECT

2. MAIN RESULTS OF THE RESEARCH:

- Readiness of teachers and students for distance education
- Specifics of vulnerabilities
- Innovations

3. KEY RECOMMENDATIONS



ABOUT THE PROJECT



PROMOTING INNOVATIVE APPROACHES
IN DISTANCE EDUCATION TO IMPROVE ACCESS
AND REDUCE INEQUALITY IN EDUCATION
IN KYRGYZSTAN, MONGOLIA AND TAJIKISTAN
2021-2023

ABOUT THE PROJECT



Consortium of 3 public organizations:

TAAALIM-FORUM

KYRGYZSTAN

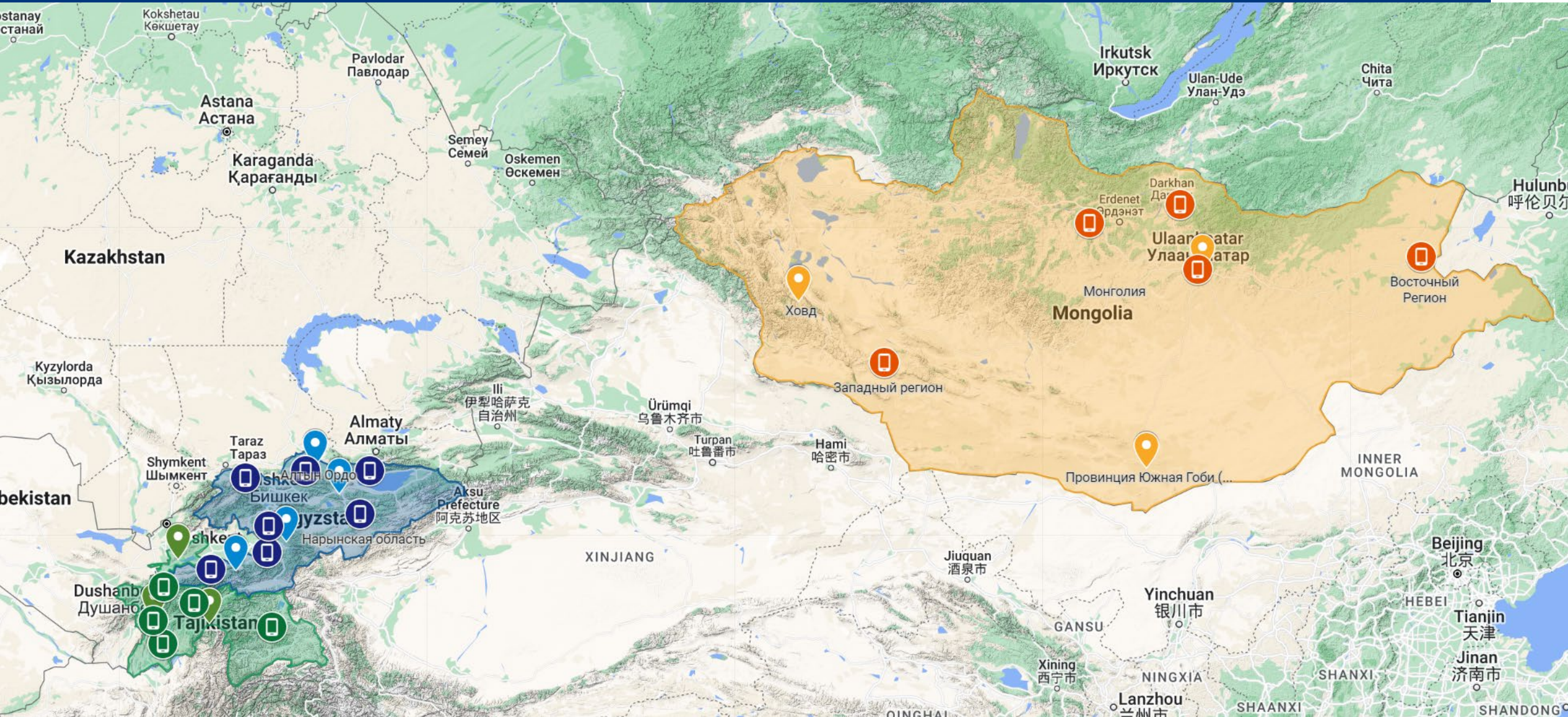
NNC

MONGOLIA

ANAHITA

TAJIKISTAN

GEOGRAPHY OF RESEARCH



METHODOLOGY



	KYRGYZSTAN	MONGOLIA	TAJIKISTAN	TOTAL
FOCUS-GROUP DISCUSSION	26	18	18	62
PARTICIPANT OBSERVATION	8	6	6	20
INTERVIEW	44	48	21	113
STUDENTS SURVEY	3577	2000	898	6475
TEACHERS SURVEY	896	225	500	1621
SCHOOLS	180	45	162	387
REGIONS	7	4	5	16
CITIES	2	1	2	5

THE RESEARCH QUESTIONS



1. What are the specific vulnerabilities of groups studying in the distance education format, living in remote regions, boys and girls, including from ethnic minorities? New types of inequalities and specifically vulnerable groups?

2. What innovative practices of distance education have been identified? What is innovation? Who are they created by and who are they identified by? How can innovative practices be scaled up, in what formats and for which vulnerable groups?

FOCUS 



**Remote
regions**



Gender



**Ethnic
minorities**

PHASES OF WORK



2021 - Desk research

2021/2022 - Examination and approval of the research tools

2022 - Qualitative stage of the research

2023 - Quantitative stage of the research

2022/2023 - Discussions of preliminary results

2023/2024 - Presentations for key stakeholders

02/2024 - Publication of reports and policy briefs

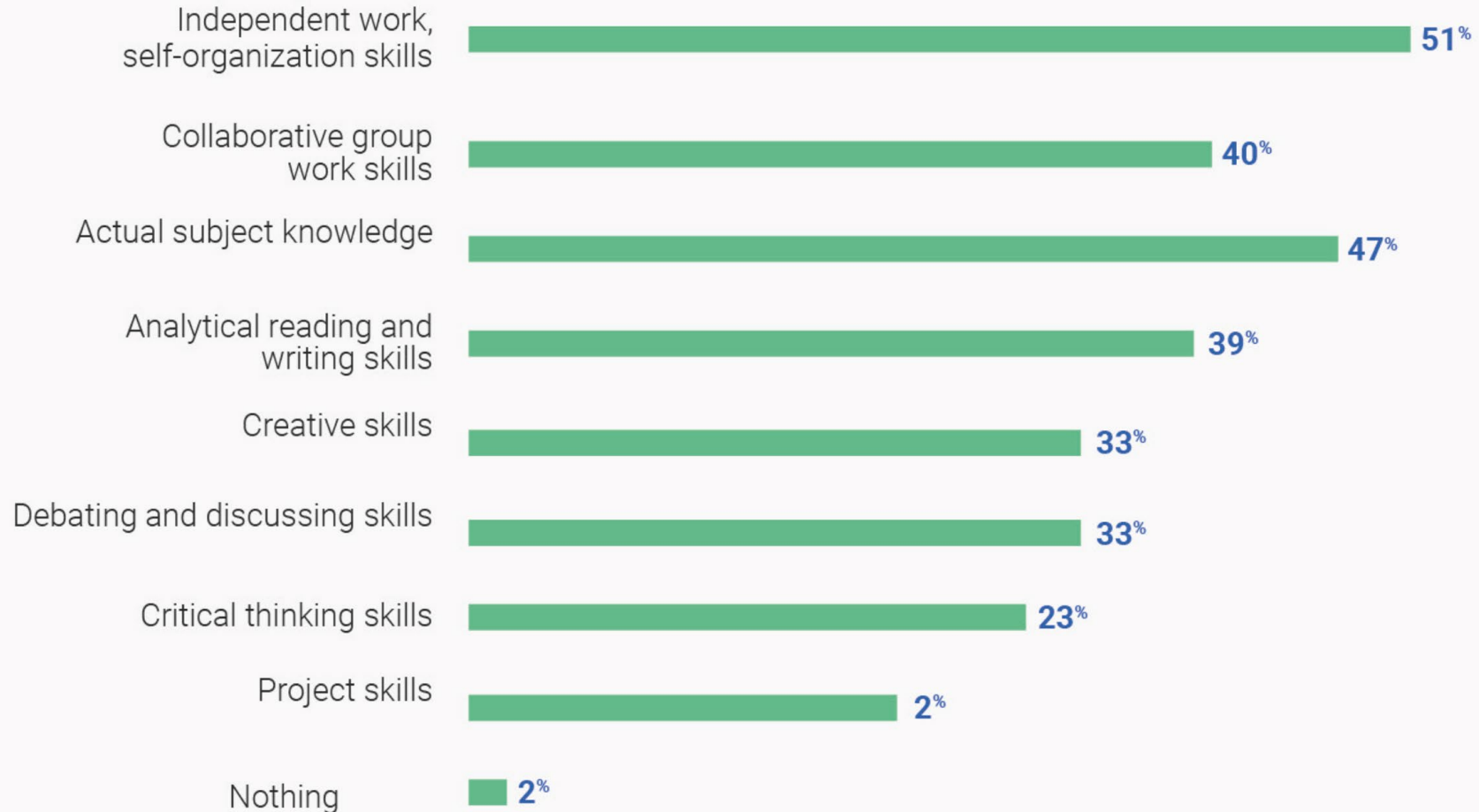
ACTUALIZATION OF THE THEME and ENGAGING STAKEHOLDERS



- 20** events - round tables, conferences, consultative meetings, workshops, 800 participants in total
- 12** trainings and seminars for 300 teachers, methodologists and students
- 3** online courses on ICT skills for teachers
- 10** presentations at national, international, global conferences and forums
- 2** exchange tours for the Ministry of Education and Science of Mongolia
- 5** scientific articles in peer-reviewed journals
- 350** publications (podcasts, videos, posts) with an audience reach of more than 100,000
- 35** publications in the KIX newsletter
- 4** Memorandums of Cooperation

READINESS OF TEACHERS AND STUDENTS FOR DISTANCE EDUCATION

WHAT TYPES OF STUDENT LEARNING OUTCOMES ARE MORE DIFFICULT TO DEVELOP IN THE DE MODE?

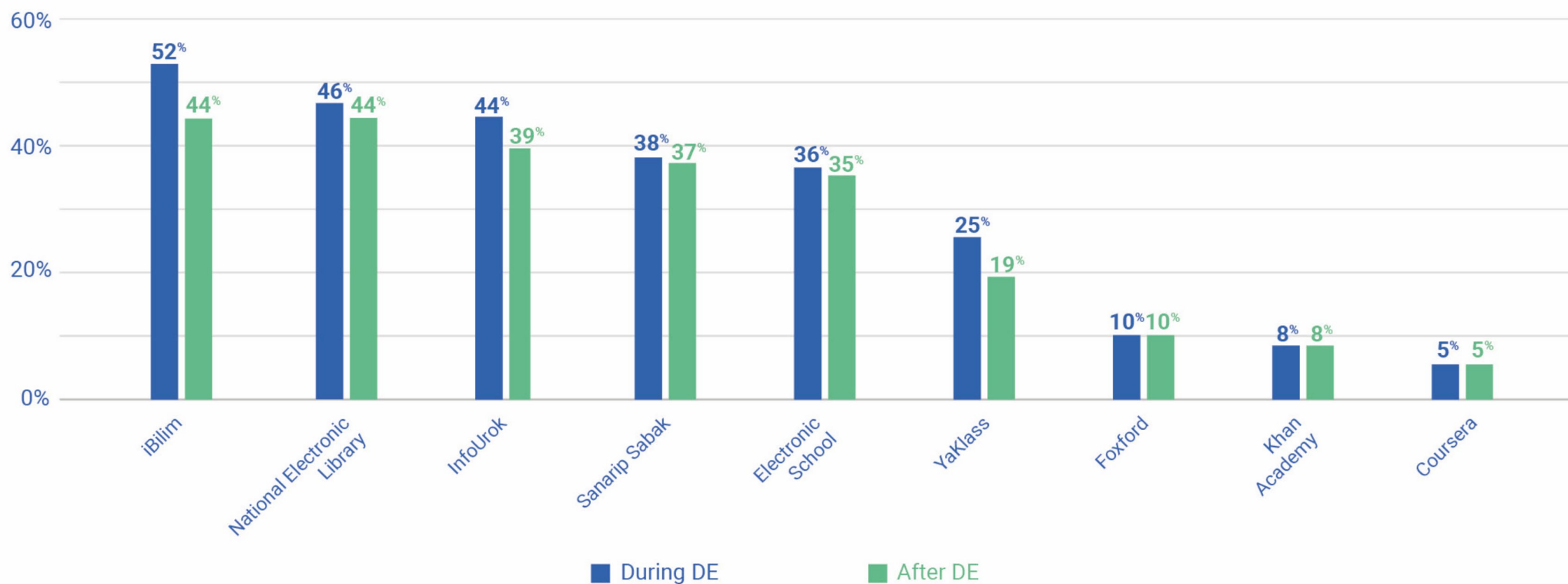


EVALUATION OF DISTANCE EDUCATION EXPERIENCE. TEACHERS



	Completely disagree	Rather disagree	Rather agree	Completely agree
Remote work seriously worsened quality of education and skills of my students	8%	10%	49%	34%
I found myself fully prepared to work during quarantine; it was not uncomfortable for me	32%	36%	21%	10%
Working remotely during quarantine gave me more opportunities for individual work with students, taking into account their peculiarities	20%	35%	35%	11%
Due to quarantine and changes in working conditions, we did not have time to go through the entire program of study	19%	25%	41%	15%
DE did not enable me to effectively monitor independent completion of assignments by my students	9%	18%	45%	28%
DE allowed us all to learn new formats of learning activities that are interesting to me and my students	13%	25%	42%	20%
I have more time for self-education and methodological work	11%	26%	43%	20%
Almost all students were very actively involved in the distance work	22%	49%	20%	10%

USE OF ELECTRONIC RESOURCES



USE OF ONLINE TOOLS AND SERVICES BY TEACHERS



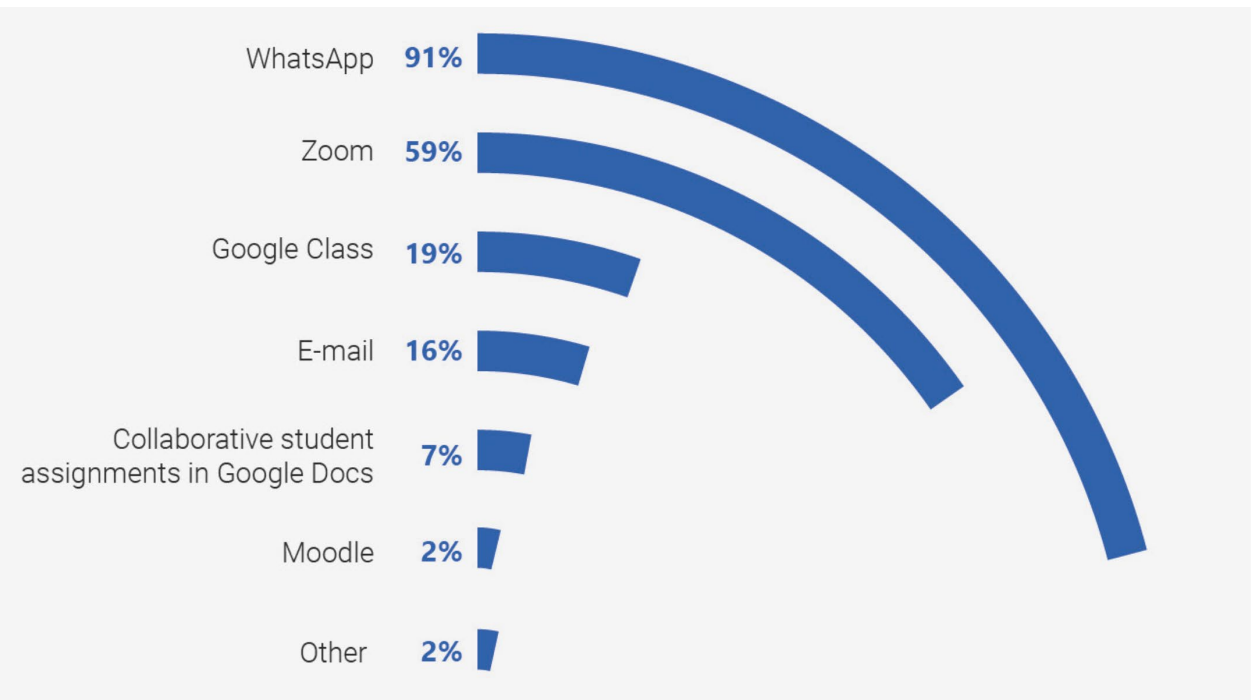
Online platforms for professional development of teachers	12%
Electronic catalog of resources of the school library	13%
Mobile applications for conducting quests	13%
Cloud services and file sharing platforms (Dropbox, Google Drive)	18%
Electronic libraries, electronic journals, electronic versions of printed journals	29%
School website	33%
Information and educational platforms (Kut Bilim, Teacher's newspaper, 1 September, etc)	38%
Electronic services, software for working with documents (e.g. MS Office, Open Office)	42%
Services for conducting surveys and tests (Google Forms, Kahoot, Mentimeter)	44%
Platforms and services for organizing student work (Google Class, Microsoft Teams)	56%
Video conferencing platforms (ZOOM, Skype)	70%
Video hosting service (Youtube, Vimeo)	74%

ICT COMPETENCIES OF TEACHERS DURING DISTANCE LEARNING



- highly rated their basic and advanced computer skills- however,
- their subjective assessments differ significantly from actual practice

The use of Internet services for online learning according to students' opinions



TEACHERS' OPINIONS: STUDENTS IN DISTANCE EDUCATION



22% “Students actively participated during preschool education”

35% “DE programs allowed me to teach fully, achieving my goals”

35% “All students had constant access to learning materials”

87% “Students’ motivation to learn in the DE mode is lower than in traditional education”

STUDENTS' OPINIONS ON DISTANCE LEARNING



45% of students rated their distance learning experience as “good”

28% as “satisfactory”

20% of students surveyed responded that they “like online lessons”

86% of students and 88% of teachers preferred the “traditional format” to the remote education

TEACHER READINESS INDEX



1. Online learning and course development skills **62%**
2. Digital communication **63%**
3. Basic computer skills **80%**
4. Advanced computer skills **82%**
5. Use of learning management systems **86%**

INDEX OF READINESS OF TEACHERS AND STUDENTS OF KYRGYZSTAN FOR ONLINE LEARNING



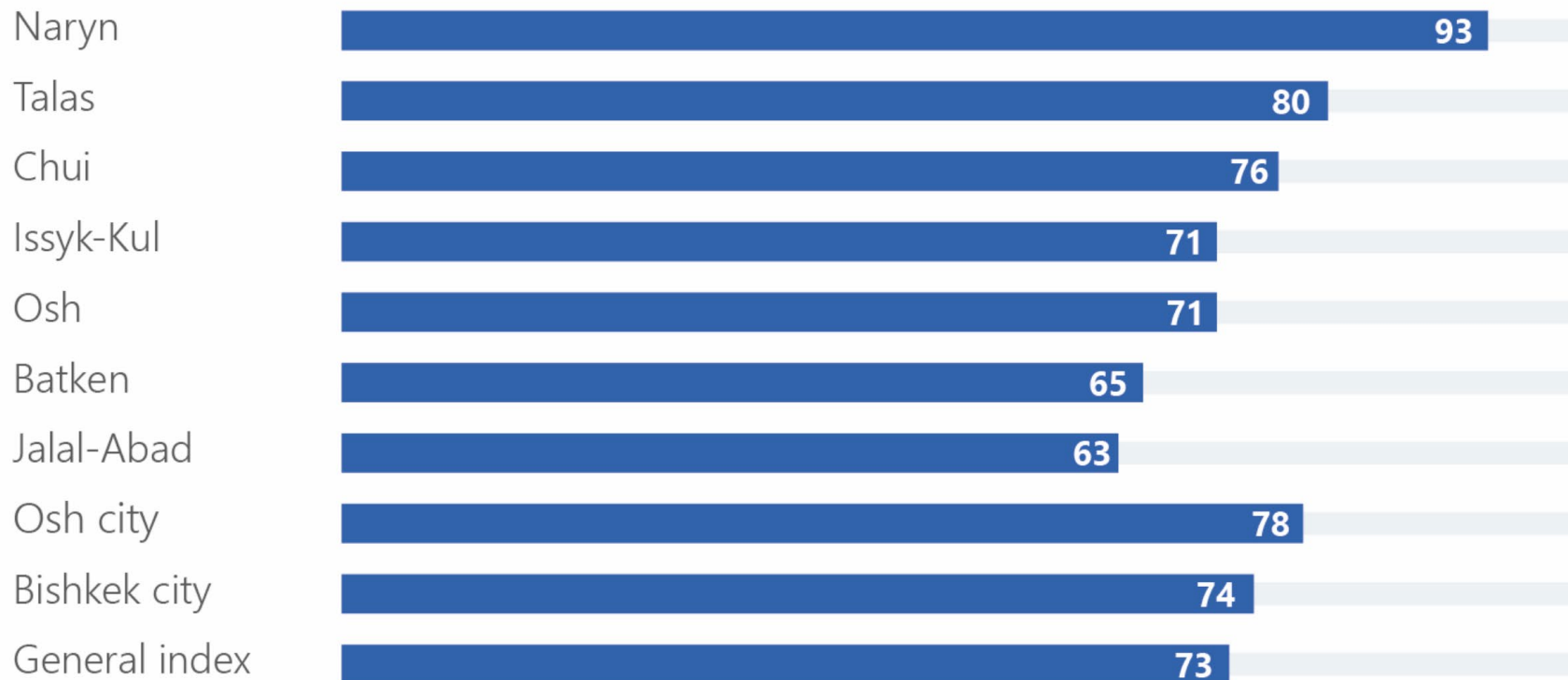
	Teachers (N=896)	Students (N=3577)
Use of learning management systems	62	56
Online learning and course development skills	63	59
Advanced computer skills	80	67
Basic computer skills	82	68
Digital communication	86	77
Overall readiness index	72	65

Main subject	Readiness index
Primary grades	69
Humanities	72
Art and music	79
STEM	74
Elementary military training/ Physical education	55
Various subjects	64

INDEX OF TEACHER READINESS FOR PRESCHOOL EDUCATION BY REGIONS OF THE KYRGYZ REPUBLIC



Region



Overall readiness index

SELF-ASSESSMENT OF READINESS FOR PRESCHOOL EDUCATION BY STUDENTS



Region	Factors					General readiness index
	Online learning and course development skills	Digital communication	Basic computer skills	Advanced computer skills	Use of learning management systems	
Batken	61	80	65	69	60	67
Jalal-Abad	61	79	60	65	58	65
Issyk-Kul	59	78	73	72	61	68
Naryn	80	88	89	87	89	86
Osh city	61	77	65	69	56	65
Osh	45	68	61	61	41	54
Talas	71	85	55	61	57	67
Chui	60	77	73	64	55	66
Bishkek city	59	76	81	71	61	69
Nationwide	59	77	68	67	56	65

MAIN CHALLENGES



Distance learning was not accompanied by:

- ***clear statement of learning objectives and methodological support***
- ***taking into account infrastructural development and technical equipment of teachers and students***
- ***taking into account the level of ICT skills of teachers, students and their parents***

MAIN CHALLENGES



High readiness
index to DE

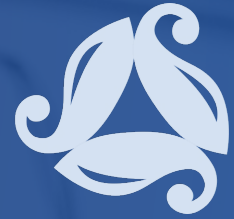


Low interest in using
the DE format



Possession of digital skills is recognized by teachers as a necessary requirement for the level of professionalism of a teacher, which in practice is a difficult task.

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SPECIFICITY OF VULNERABILITIES IN **DISTANCE EDUCATION** CONDITIONS

VULNERABILITY FACTORS

FOR TEACHERS AND STUDENTS



Traditional:

- socio-economic status of the family
- living in remote regions
- gender stereotypes
- health restrictions
- access to learning resources

New:

- training under conditions of quarantine and isolation
- digital divide and digital inequality
- transparency of the educational process

VULNERABILITIES OF TEACHERS IN DE



73%

of teachers responded in agreement to the statement "Distance work did not give me an opportunity to effectively control my students' independence in completing assignments".

Teachers expressed concerns due to non-completion of the program of study:

56%

confirmed that "due to quarantine and changes in working conditions, they did not have time to complete the entire program."

Teachers noted discomfort and increased proneness to conflict due to increased working hours and the disappearance of boundaries between work and personal time and space.

83%

of teachers agreed, to varying degrees, that remote work seriously impaired the quality of knowledge and skills of students.

48%

of respondents mentioned "the need to spend much more time preparing and delivering lessons, checking assignments" as a key problem of their DE experience.

86%

of teachers agreed that the workload in DE was high, and

экендигине макул болсо, **91%** reported spending more time on lesson preparation compared to traditional teaching.

42%

of respondents recognized the difficulty of combining work and family responsibilities in the same space.

10%

agreed that they were prepared to work under conditions of forced quarantine.

VULNERABILITIES OF STUDENTS IN DE CONDITIONS. TEACHERS' OPINION



TRADITIONAL VULNERABILITIES

Children from large families

Children from poor families

Children from single-parent families

Children in difficult life situation, including with disabilities; in conflict with the law

Children of labor migrants

NEW VULNERABILITIES

Elementary school pupils

Children living in remote regions, as well as on the outskirts of large cities

Children studying in minority languages

Children whose mothers have a low level of education

Children who dropped out of school after the pandemic

WORK IN THE HOUSEHOLD AND STUDY



The division of labor corresponds to traditional gender roles:

- **74%** of girls and **36%** of boys – cleaning
- **5%** and **10%** of girls, **31%** and **41%** of boys - caring for livestock, agricultural work
- **41%** of girls and **7%** of boys – cooking
- **57%** of girls and **47%** of boys - teaching younger siblings
- **10%** of boys and **8%** of girls care for sick family members

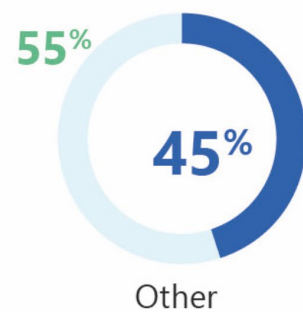
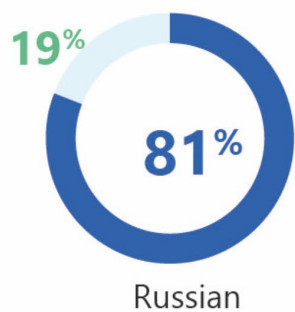
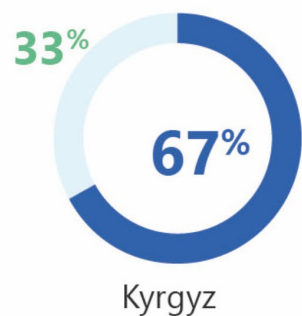
Doing homework (studying)

- **34%** of boys and **48%** of girls spend more time preparing
- **36%** of boys and **24%** of girls have less time to prepare
- **29%** of girls and **40%** of boys completed less than half of their homework

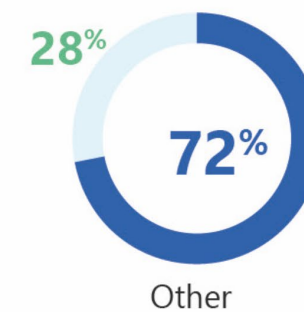
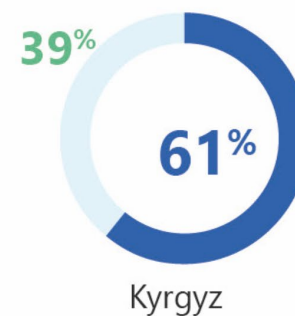
ACCESS TO TECHNICAL DEVICES



SMARTPHONE



COMPUTER / LAPTOP / TABLET



- Before quarantine
- During quarantine

FACTOR OF BELONGING TO ETHNIC MINORITIES



General readiness index for schools depending on the language of instruction:

- 68% - Russian
- 66% - Kyrgyz
- 64% - Tajik
- 60% - Uzbek

Access to educational resources: several lessons on the subject “Uzbek language” have been posted on the MES platform;
in Tajik - no.

Access to devices: Students from religious backgrounds and ethnic minorities have access to technology for the first time due to DE requirements.



Geographical remoteness limits access to:

- Internet infrastructure (electricity, access, Internet speed)
- Learning resources and materials lead to social isolation.

Social isolation

- Students who do not have a school in their place of residence have limited communication with peers
- Students with disabilities face discrimination due to limited access to adapted digital learning resources
- Students with visual or hearing impairments may have difficulty using digital technologies

POSITIVE ASPECTS OF ACCESS TO TECHNOLOGIES



27%

improvement of access to study materials; much easier to prepare for lessons;

28%

a chance to sleep in, not have to go to school early;

23%

ability to share homework with classmates or not do it at all (**9%**);

7%

Lack of personal space for studying.

of respondents noted that family members at home interfered with them and it was impossible to fully connect to the online lesson;

3% to **20%**

of respondents noted absence/limitations of technology for DE, including stable Internet access

48%

opportunity to gain teamwork skills;

27%

access to consultations and communication with teachers;

23%

more attention to parents;

9% to **11%**

of respondents noted that when using technology (TVs and smartphones), they had to share them with siblings;

7%

opportunity to avoid racketeering in school;

12%

opportunity to avoid encounters with unpleasant classmates;

17%

noted limited technical skills.

8%

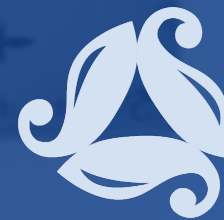
of respondents noted an increase in household labor load;

VULNERABILITY OF TEACHERS AND STUDENTS. FINDINGS



- The digital divide has exacerbated traditional vulnerabilities in the education system
- Teachers and school administrators perceive vulnerability as a stable category.
DE showed that vulnerability can be overcome by effective management and technology
- Inequality of access to the Internet, devices, platforms for supporting the learning process in the DE format, digital educational materials, lack of ICT skills of teachers, students and parents
- Lack of information and methodological resources and educational literature, teaching methods in the DE format and guidelines for self-organization
- Psycho-emotional isolation and insecurity

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INNOVATIONS DURING DISTANCE LEARNING



MINISTRY OF EDUCATION AND SCIENCE OF THE KYRGYZ REPUBLIC

Organization of the educational process during the quarantine period

Creation and broadcast of TV lessons

Multimedia educational platforms

Digitization of books

ICT trainings

PUBLIC, PRIVATE AND VOLUNTEER INITIATIVES

Online school “Mugалиm” - course development, electronic educational platform

Khan Academy in Kyrgyzstan – translation of the international educational resources into Kyrgyz language

“Sanarip Mugалиm” study center – “teacher to teacher” training

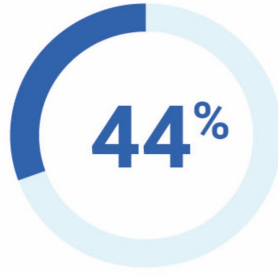
“Online Mektep” - on a volunteer basis, “experts to teachers”, online webinars

Platform “Online Mektep” of the educational complex “Creative - Taalim

INNOVATION. RESULTS OF THE SURVEY



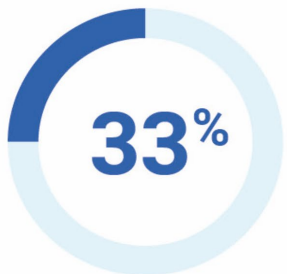
Introduction of new practices developed by other schools



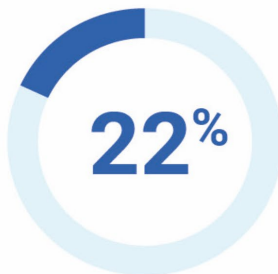
Presentation of new materials, lessons or pedagogical methods developed by other schools



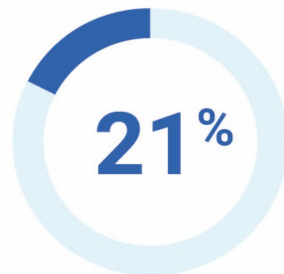
Implementation of new practices developed by your school



Presentation of new materials, lessons or pedagogical methods developed by your school



Conducting pilot or experimental practices for possible future implementation



Did not engage in innovative activities

Barriers:

43% lack of funding

37% lack or inadequacy of training equipment

39% low motivation of students and parents

26% - “tiredness of reforms”

34% - “excessive workload”

INNOVATIONS. FACTORS



For what?

Improving access and quality of school education

Bridging the gap between strategic documents and their practical implementation

Ensuring the inclusion of vulnerable groups and groups with special needs

What is missing?

Organization and management (regulatory legal acts, mechanisms, comprehensive support)

Provided budget and material and technical base

Trained management and teaching staff

Bottom-up initiatives, professional communities, collaboration and partnerships

Areas of use

Management of schools and educational process

Development of digital platforms and educational materials (implementation/updating)

Development of relevant programs for professional training and development of teachers

RECOMMENDATIONS



MANAGING THE DIGITAL TRANSFORMATION OF SCHOOL EDUCATION:

- Introduce a phased approach in standardization, optimization and automation of teaching and learning processes in the country's schools to meet the national and global goals of “quality education for all”, namely access to quality education.
- Adopt a concept, strategy and roadmap with indication of implementation mechanisms, processes, achieved results, measurement of digital competencies of managers and teachers.
- To provide a digital basis for objective monitoring and independent assessment of the quality of education at the school level according to the new Law of the Kyrgyz Republic “On Education” № 179 dated 11 August 2023.
- Strengthen interagency cooperation on compatibility of information management systems and real-time data exchange to ensure the quality of information collection and storage in EMIS, taking into account the relevance and guarantee of data security.

RECOMMENDATIONS



DEVELOPMENT OF DIGITAL EDUCATIONAL ENVIRONMENT:

- Continue building up the digital infrastructure of educational institutions, gradually equipping and regularly updating schools and teachers with computer equipment and assigning an administrator for technical support.
- Institute a position of a specialist in the digitalization of the educational process at the level of secondary schools.
- Ensure Internet accessibility and increase Internet speed, especially for remote mountainous regions, through coordinated interdepartmental cooperation between government agencies, local governments and development partners.
- Bring the system of professional development of teachers and administrators in line with the concept of continuous professional development of teachers with a focus on improving ICT competencies.
- Establish a cross-cutting system of ICT competency building for teachers that encompasses the system of professional teacher training and retraining.
- Integrate programs aimed at overcoming technological and psychological barriers for teachers and mitigating professional burnout.

RECOMMENDATIONS



INCREASING THE EFFECTIVENESS OF USING DIGITAL LEARNING PLATFORMS

- Establish a National Platform of Educational Resources (following the example of Mongolia) with navigation for all school subjects at all levels, involving innovative teachers and providing regular updates.
- Promote the use of open educational resources, including existing and new digital resources and online libraries, etc.
- Encourage students to actively master technologies and educational resources.
- Expand and update digital educational resources in the state and ethnic languages of Kyrgyzstan.
- Develop digital solutions that take into account the needs of children with disabilities.
- Continue digitization of paper books, including teaching aids in interactive format.

RECOMMENDATIONS



CULTIVATING INNOVATION AND ENHANCING COLLABORATION IN SCHOOL EDUCATION

- Develop a conceptual framework for innovation in school education with appropriate terminology to achieve common understanding and interpretation among key individuals and specialists.
- Establish institutional mechanisms to identify and scale innovative models and practices of digital pedagogy in the teaching and learning process.
- Study Mongolia's experience of establishing an “Electronic School” to increase access to quality education for boys and girls from remote rural areas, children of migrants and other vulnerable groups.
- Support the best practices of self-organization, leadership, volunteering, and networking among innovative teachers and the Association of Subject Teachers.
- Strengthen the role of parental mediation in the formation of digital literacy of students, especially in primary grades, through the development of special training programs and schools for parents

RECOMMENDATIONS



STRENGTHENING INTERACTIONS WITH PUBLIC ORGANIZATIONS AND PRIVATE COMPANIES

- Expand effective cooperation in conducting joint educational research, studying the needs of teachers and students, identifying problems and finding solutions for effective digitalization of education.
- Expand public-private partnerships in the development and implementation of digital solutions for the educational process, training programs to improve ICT competencies of teachers and managers, development of OER, adaptation and translation of learning resources into Kyrgyz and ethnic minority languages.
- Provide for joint development of educational resources for distance learning for children from vulnerable groups, with disabilities and those lacking access to the Internet.



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