



SCALING INNOVATIVE ELEMENTS OF A PRESCHOOL EDUCATION PROJECT IN KYRGYZSTAN

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ABOUT THE LEARNING CYCLE FEASIBILITY STUDIES ON SCALING INNOVATION

This case study is a result of the KIX EAP Learning Cycle "Feasibility Studies on Scaling Innovation". Organised by NORRAG and the Nazarbayev University Graduate School of Education (NUGSE), this skills- and outcomes-oriented course ran from September 2020 to January 2021. Across 11 weeks, this professional course enabled national experts to publish evidence-based studies by examining the conditions whereby it is feasible to scale up an existing innovation or a pilot project in their country. Nine teams of educational sector experts from Georgia, Kyrgyzstan, Moldova, Tajikistan and Uzbekistan took part in this Learning Cycle.



KIX EAP Learning Cycle Case Study, September 2021

The KIX EAP Hub is supported by



Network for international policies and cooperation in education and training
Réseau sur les politiques et la coopération internationales en éducation et en formation



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This case study is a product of the [KIX EAP Learning Cycle: Feasibility Studies on Scaling Innovation](#) with external contributions. This work was supported by the Global Partnership for Education (GPE) Knowledge and Innovation Exchange (KIX), a joint endeavour with the International Development Research Centre (IDRC), Canada. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of the KIX EAP Hub, NORRAG, GPE, IDRC, its Board of Governors, or the governments they represent. The KIX EAP hub / NORRAG does not guarantee the accuracy of the data included in this work.

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LIST OF ACRONYMS AND ABBREVIATIONS

CASTL	Center for Advanced Study of Teaching and Learning
CbK	Community-based Kindergarten
CLASS	Classroom Assessment Scoring System
CPD	Continuous Professional Development
EAP	Europe Asia Pacific
ECE	Early Childhood Education
EDI	Early Development Instrument
EGRA	Early Grade Reading Assessment
GPE	Global Partnership for Education
KIX	Knowledge and Innovation Exchange
M&E	Monitoring & Evaluation
MoES	Ministry of Education and Science
NOODU	National Assessment of Educational Achievements of Students in Grade 4
NSDS	National Sustainable Development Strategy
PISA	Programme for International Student Assessment
READ	Russia Education Aid for Development
SEN	Special Educational Needs
TLM	Teaching and Learning Material
WB	World Bank

ACKNOWLEDGEMENTS

The authors would like to sincerely thank all the institutions and people who contributed to this publication, either conceptually, organizationally, or technically.

Our special thanks go to the following professionals who participated in our Focus Group Discussion in December 2020, providing invaluable information, advice, and recommendations:

Mrs. Dinara Urmatova, Sverdlov Rayon Education Centre, Leading Specialist

Mr. Shairbek Ergeshov, Jalal Abad City Education Unit, Specialist

Mrs. Bermet Asanbaeva, SOS Children Villages of Kyrgyzstan, Director

Mrs. Aigul Kamalova, UNICEF Consultant

Mrs. Chynara Djumagulova, ECD Specialist, UNICEF

Mrs. Djamilya Dunganova, Kyrgyz State University named after I. Arabaev, Senior Lecturer, Expert on Inclusive Education

Mrs. Dina Eshalieva, Public Foundation of Parents of Children with Down Syndrome «Sunterra», Director

Mrs. Jyldyz Sadykova, Public Foundation of Parents of Children with Autism «Hand in Hand», Chairwoman

Mrs. Anara Nadirbekova, FECA, Director

Mrs. Saniya Amerkhanova, Institute of Continuous Distance Learning, Acting Docent

Mrs. Saltanat Mambetova, Ministry of Education and Science of Kyrgyz Republic, Leading Specialist

Mrs. Tatiana Romanova, Republican Psychological, Medical and Pedagogic Consultancy Service under the Ministry of Education and Science of the Kyrgyz Republic, Chairwoman

This report would not have seen the light of day without the support of all those listed above and all other colleagues and partners, whom it is not possible to list here.

Raising quality and accessibility of pre-school and inclusive education in Kyrgyzstan is only possible with joined, coordinated and transparent efforts of civil society, government, and development cooperation agencies.

EXECUTIVE SUMMARY

A growing body of evidence exists on how to scale innovations. However, research on scaling educational innovations is still scarce. Even less is known about multi-layered nationwide initiatives targeting different or all levels of an education system.

This study sets out to explore the feasibility of scaling a World Bank-funded project on inclusive preschool education in Kyrgyzstan to expand the knowledge base on scaling innovation in education.

First, the study investigates the project in depth to better understand which elements can be considered innovative, whether these elements can be brought to scale, and how. A variety of methods are employed, including document analysis, semi-structured interviews, and a focus group discussion. Second, a feasibility analysis is conducted to explore the capacity and necessary next steps for scaling. Based on a review of the literature on scaling innovations and the results of the present study, the ways in which successful elements of inclusive preschool education can be scaled in Kyrgyzstan and similar contexts are highlighted.

This study finds that the project features several innovative approaches that lend themselves to scaling. The project generated high-quality teaching and learning materials by employing a multi-stakeholder approach. These materials were then used to implement preschool education based on a novel shift-based approach, which increased cost efficiency and leveraged existing networks across the country. The project also jumpstarted the implementation of inclusive early childhood education. The impact and efficiency of the project were measured by way of successfully utilising standardised assessment tools for monitoring and evaluation.

All these elements lend themselves to scaling. Most importantly, the study finds that the project's teaching and learning material activities can be scaled horizontally through increased aggregation and dissemination. Inclusive education activities may benefit from leveraging the project's cost efficiency strategies and network-strengthening activities.

The present study was made possible by the International Development Research Centre and the Global Partnership for Education Knowledge and Innovation Exchange (KIX) initiative. NORRAG (Network for international policies and cooperation in education and training), as one of the Regional

Learning Partners of KIX, offered a professional development opportunity to national education sector experts from 21 GPE partner countries in the Europe, Asia, and Pacific (EAP) region on the topic of scaling innovation.

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BACKGROUND

The pre-primary education sector in Kyrgyzstan suffered most following the collapse of the Soviet Union when 70 percent of the country's preschools closed. As of 2010, only 18 percent of children aged 3 to 6 years old were enrolled in preschool education (World Bank, 2019). Rural populations in particular experienced hardship in this regard. The rural population in Kyrgyzstan constitutes roughly two thirds of the total population, but only one third of children living in rural areas were found to be enrolled in preschool institutions. The same was observed among socioeconomically disadvantaged children. Only 10 percent of the most disadvantaged children attended a preschool, compared to 50 percent of children from the highest socioeconomic demographic group.

In 2011, with the technical and financial support of a World Bank grant under the Fast-Track Initiative (FTI-II), the Ministry of Education and Science (MoES) introduced a 240-hour school preparation programme. It operated across 3 to 4 months in the spring and summer and focused on increasing school readiness. As a result, preschool coverage increased from 44 percent in 2011 to 62 percent in 2012, with a substantial increase in rural areas.

Following up on the results of the FTI-II, as well as the ongoing dialogue with key stakeholders and an increasing demand for preschool education at the local level, the government of Kyrgyzstan decided to introduce a full-year preparation programme in 2014–15. The school system had sufficient physical capacity (with some exceptions in Bishkek) to accommodate the increased use of school premises for preschool activities, but major problems burdening preschool education remained. These included outdated teaching and learning materials (TLMs), poor alignment with the curriculum of primary education, and poor training available for teachers. Furthermore, children with special educational needs (SEN) were not well served by the preschool system. According to the MoES, 14 special kindergartens enrolled 1,556 children with special needs. Two thirds of these special kindergartens were in the capital of Bishkek. Regular pre-primary educational programmes had little or no capacity to serve children with SEN as teachers had very limited knowledge and skills to create inclusive environments, and parents and schools were unaware of screening and referral services, which also lacked capacity. As a result, many children with SEN were home-schooled, received no special attention at regular kindergartens (if enrolled), or received no formal education at all.

it as one of the core areas of the country's Education Action Plan for 2012–2020. Universal coverage of school preparation programmes and the expansion of pre-primary schooling were also embedded in the Law on Preschool Education adopted in June 2009, which set forth the goal of providing affordable, high-quality, and financially sustainable services. The government's Education Action Plan for 2012–2020 and the National Sustainable Development Strategy (NSDS) for 2012–2014 stressed the need to expand the duration and coverage of the school preparation programme. They specified that an expanded programme should increase access to lower-cost models of preschool education for children of ages 4 to 5, develop models with the private sector for parents to share preschool education financing, and aim for more inclusivity in preschools.

The Government of the Kyrgyz Republic recognized the importance of early childhood education (ECE) and identified

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PROJECT OVERVIEW

General project parameters

Within the described context, the World Bank set out to implement a comprehensive preschool education project to put ECE at the forefront of government policy and action. The project 'Nariste' (Kyrgyz for toddler) was implemented as part of round 3 of the Kyrgyz Global Partnership for Education (GPE) project from 2014 to 2018. The project's budget was 12.7 million USD.

The Ministry of Education and Science of the Kyrgyz Republic and a World Bank project management unit were tasked with increasing equitable access to and quality of preschool education in Kyrgyzstan. Equitable access to preschool education was expected to be achieved through maximising equal ECE coverage through opening school preparation classes at existing schools or newly established community-based kindergartens (CbKs). Through the targeted expansion of CbKs, focusing on poverty levels, the project sought to increase enrolment among society's disadvantaged strata. CbKs were provided with quality TLMs (in key languages of instruction), furniture, equipment, and adequate sanitary facilities. The introduction of the shift-based approach in delivering preschool education ensured cost-efficiency, while increasing coverage and equity. The programme also promoted communication and advocacy outreach activities to increase parental engagement. In addition, the project introduced and piloted a model for inclusive education to better serve children with SEN.

The project consisted of three components. Component 1 focused on enhancing access to quality preschool education, targeting the poor and vulnerable groups, and including minority ethnic groups and children with SEN. Component 2 focused on improving policy, programmes, and system effectiveness. Component 3 supported the project's implementation through advocacy, communication, and monitoring and evaluation (M&E).

Theory of change

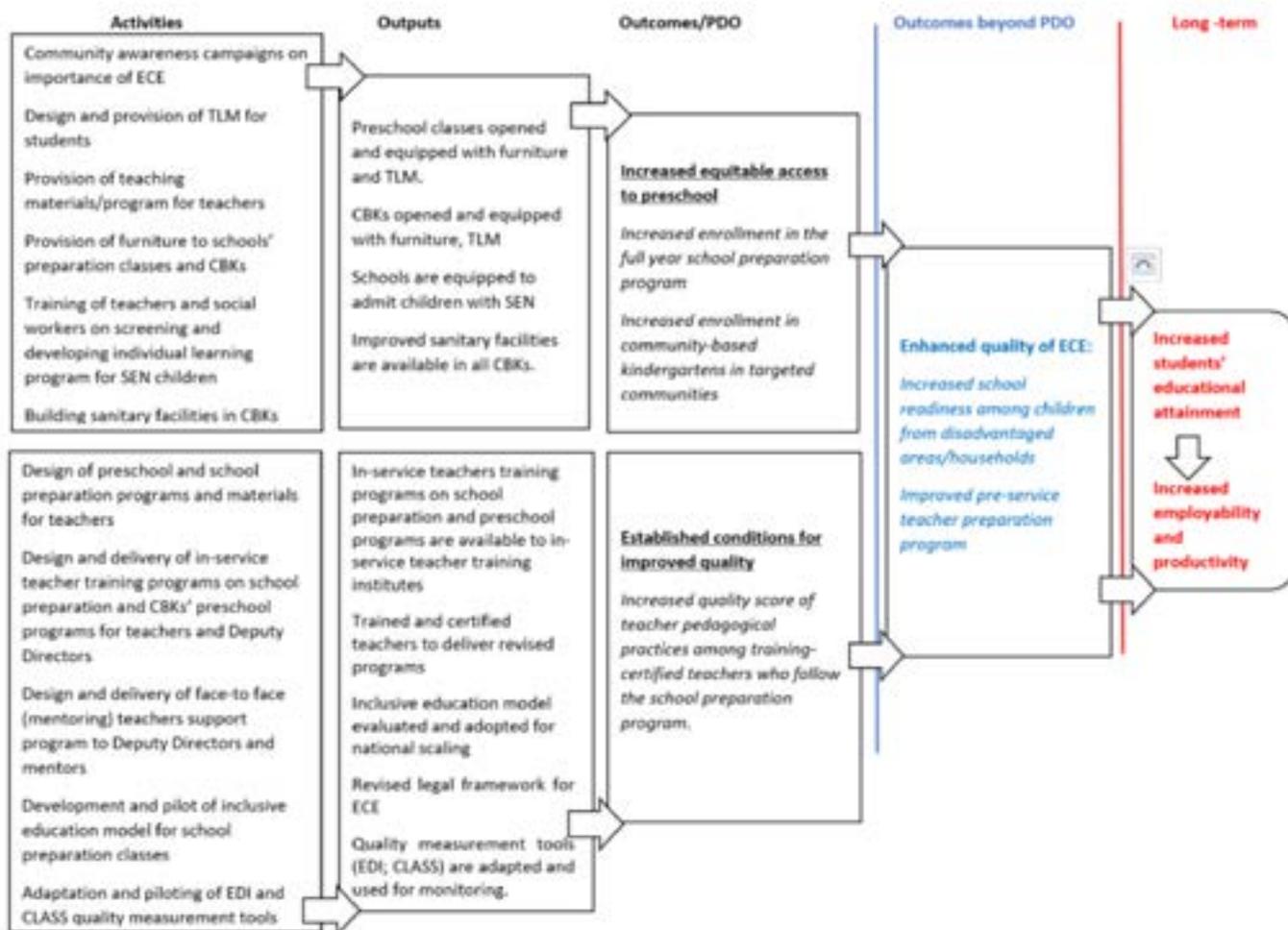
International evidence suggests that early intervention aimed at developing cognitive, physical, behavioural, and language skills helps promote greater equality when children enter primary education (McCoy et al., 2017). It also suggests that targeted ECE programmes particularly benefit the most disadvantaged children. This assumption is further reinforced

by PISA 2009 results, which emphasise that preschool education is positively related to cognitive abilities among students who are 15 years of age (Umek et al., 2012). With this in mind, the project's main objective was to maximise equal coverage by the ECE programme and establish conditions for its improved quality, while simultaneously using cost-efficient approaches for delivery, targeting the most disadvantaged groups, promoting communication and advocacy outreach activities to increase parental engagement, focusing on quality teacher training and TLMs, and initiating system reforms through a revised legal framework.

The project's Theory of Change was that the expansion of equal access to quality preschool education would increase children's readiness for learning and, therefore, support the government's long-term strategy to strengthen students' foundational skills for increased employability. 'Equitable access to preschool education' was expected to be achieved through opening school preparation classes and enrolling the most disadvantaged children in existing schools. The expansion of CbKs targeted the poorest communities, based on a poverty map and enrolment data, and ensured greater coverage of children by the ECE programme due to a shift-based operation mode. The introduction of the shift-based approach, in delivering preschool education through school preparation classes and CbKs across the country, addressed the issue of unequal access to pre-primary education across the regions and ensured a nearly universal coverage of children in the year before grade 1.

The objective of 'establishing conditions for improved preschool education quality' was to be achieved through improved training for in-service teachers, improved quality of TLMs, the enhanced measurement of child development and teaching practices, and improved policies and legal frameworks. The interventions that measured teaching practices and students' learning skills contributed to school readiness of the targeted groups and improved the overall quality of ECE. The project's Theory of Change is outlined in [Figure 1](#) below.

Figure 1. Theory of Change: Kyrgyz Preschool Education Project (from project document)



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INNOVATIVE FEATURES

The following innovative features of the Nariste project were successful over the course of the project's implementation and lend themselves to potential scaling. This section will first discuss how these innovative features were identified. It will then proceed to detail the identified features and then address the potential scalability of the features.

Methodology

Overview

Scaling innovation is a complex endeavour, targeting different educational system levels and multiple stakeholders. In the present study, several data sources were triangulated to identify which innovative aspects of the investigated project were successful and what factors are relevant for scaling (Jentoft & Olsen, 2019). Based on document analyses, semi-structured interviews, focus group discussions, and the findings indicated by Slavin (2008), the successful aspects and enabling factors for scaling elements of the Nariste project were explored. Slavin (2008) highlighted several key factors for the successful scaling of educational innovations: namely, the existence of comprehensive teaching materials, local facilitators, local commitment, funding, support networks, and continuous research and development.

The project objectives, outcomes, activities, and contextual factors were then investigated. This included analysing empirical data collected by the Early Development Instrument (EDI) and Classroom Assessment Scoring System (CLASS) assessment tools. EDI is a reliable questionnaire completed by kindergarten teachers, which measures children's ability to meet age-appropriate developmental expectations (Janus & Offord, 2007). CLASS is a tool for analysing the quality of teacher-student interactions in the classroom (Pianta et al., 2008).

To generate insight into innovative aspects of the project, semi-structured interviews were held with four project facilitators. The interviews lasted for 60 minutes and were recorded with an audio device. The questions targeted relevant information on evaluating successful innovative aspects. The collected data was analysed by qualitative content analysis.

To examine the feasibility of scaling the innovative aspects of the project, a focus group discussion was held with eight ECE experts related to the project. This discussion emphasised obtaining recommendations for inclusive education and for children with special needs. The selection criteria for the experts were based on their levels of experience with (a) preschool education

implementation, (b) special needs education implementation, and (c) affiliation with key stakeholders (MoES, NGO, donor organisations, and educators). Questions were distributed among participants prior to the focus group discussion. The experts were asked to name conducive factors for scaling up inclusive ECE. The focus group was conducted on Zoom, and audio records were transcribed.

Limitations of the study

Several limitations need to be considered when interpreting the results of this study. The present research focused only on qualitative data from educators, project staff, NGOs, and MoES officials. It did not include stand-alone evaluations of the innovative features themselves, relying instead on second-hand information. To examine the changes in practical approaches to teaching and the quality of implemented preschool education and inclusive education would require a longitudinal mixed-method study design that incorporates teacher, student, and parent data, which was beyond the purview of this study.

Detailed description of innovative project aspects

From a general perspective, interlocutors felt that the Nariste project was remarkably successful and was able to reach most of its expected outputs and outcomes. The relative cost of preschool education was reduced, and its coverage increased, especially for the most disadvantaged children. It was noted that the project sets itself apart from other similar initiatives in its largely positive reception and perceived impact of implemented activities. The only drawback appears to have been that implementing comprehensive high quality preschool education and inclusive programming remains a significant challenge.

The project generated impact across several specific activities. These were high quality TLMs; the implementation of in-service professional development trainings for teachers, administrators, and mentors; the implementation of the assessment tools EDI and CLASS; and the development of an inclusive education pilot model.

Professional development and teaching and learning materials (TLM)

One of the most successful elements of the project was the development of new comprehensive TLMs based on international research and practices, as well as their subsequent application through a localised multi-stakeholder approach. The project mobilised various local institutions and networks to better embed newly developed TLMs.

The project first set out to develop new and comprehensive TLMs that covered aspects of preschool education per recent research findings and practices. This process was based on a multi-stakeholder approach from the outset by employing the Republican Teacher Training and Retraining Institute jointly with Ministry of Education staff and experts from across the country. The early inclusion of training service providers and other stakeholders, most notably the Republican Teacher Training and Retraining Institute, allowed TLMs to be immediately applied to in-service training courses for preschool teachers, administrators, and mentors. By way of the institute's regional outlets, the training courses were further implemented by local stakeholders at the rayon and city levels to enhance coverage of in-service teacher training. The institute developed online courses based on the TLMs for the first time in 2020, allowing the possibility of enhancing professional development coverage.

Using this localisation approach, the project was able to train more than 310 preschool teachers with a focus on mixed age groups; 8,140 teachers and administrators were trained to deliver a preparatory educational programme; 210 methodologists were trained to provide one-on-one mentorship to teachers; and 244 teachers and administrators were trained to deliver the new curriculum to children with SEN. This brought broad coverage to the target areas and anchored trained individuals within a local support system.

The multi-stakeholder approach facilitated support from key stakeholders on all levels: parental, local administrative, and governmental. In the context of the developed training courses, teachers and educators were trained to work with parents. Effective communication and parental involvement contributed to the success of preschool implementation. Collaboration was enhanced by involving local training institutes for teachers and educators at the rayon level. The project also enjoyed a high level of acceptance among the population due to its active outreach and awareness-raising activities.

Proactive communication and advocacy played an important role in increasing awareness of the project's objectives and key interventions. Moreover, participation by various beneficiary groups (parents, teachers, school administrations, methodologists, etc.) was supported.

Leveraging standardised assessment tools for monitoring and evaluation

The project used the assessment tools CLASS and EDI to evaluate improvements in teaching quality and student development over the course of the project. It was necessary to adapt the tools to the needs of preschool education in Kyrgyzstan so that an M&E system could be developed to ensure intervention effectiveness. With the support of the Center for Advanced Study of Teaching and Learning (CASTL), educators in Kyrgyzstan rated classroom interactions in over 2000 preschools at the baseline and at the end of the school year. The results showed increased teacher instruction quality in the categories of emotional support, classroom organisation, and instructional support (World Bank, 2019). Moreover, over the course of one school year, the cognitive and language abilities of all the children who attended preschool improved. Educational disparities based on socioeconomic inequalities decreased significantly. Assessment results were also used as feedback for teachers and educators, to inform professional development. Figures 2, 3, and 4 display the results from the CLASS and EDI assessments from the project period.

Figure 2. EDI Results November 2015/March 2016; Source: Offord Center for Child Studies of McMaster University, 2018

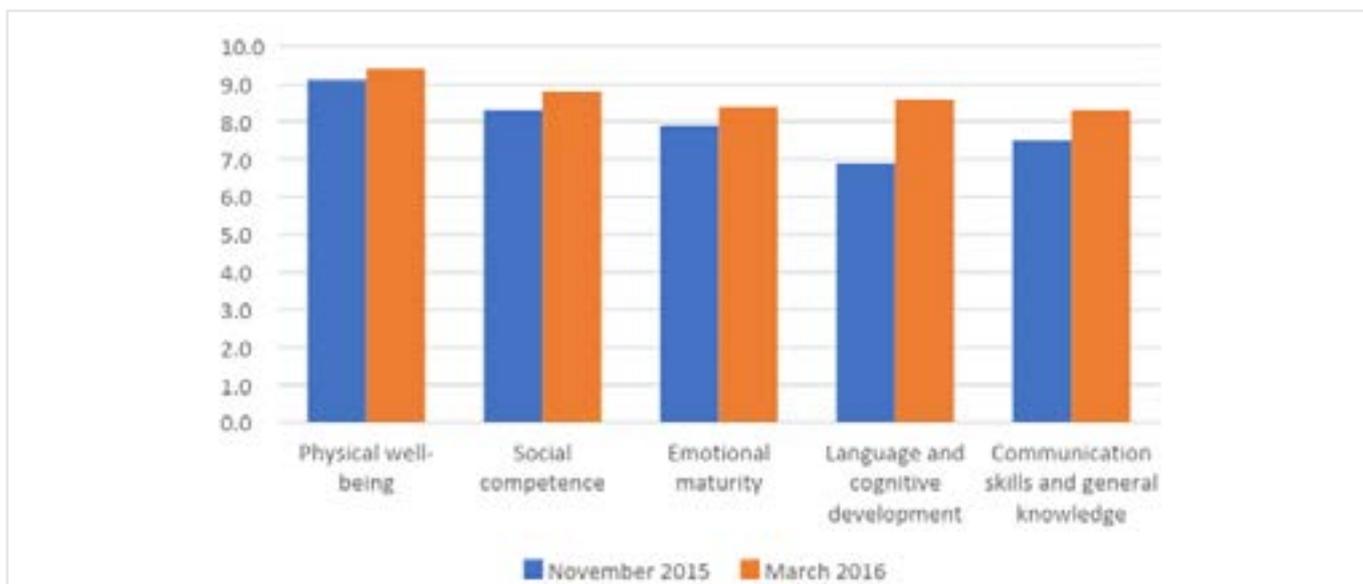
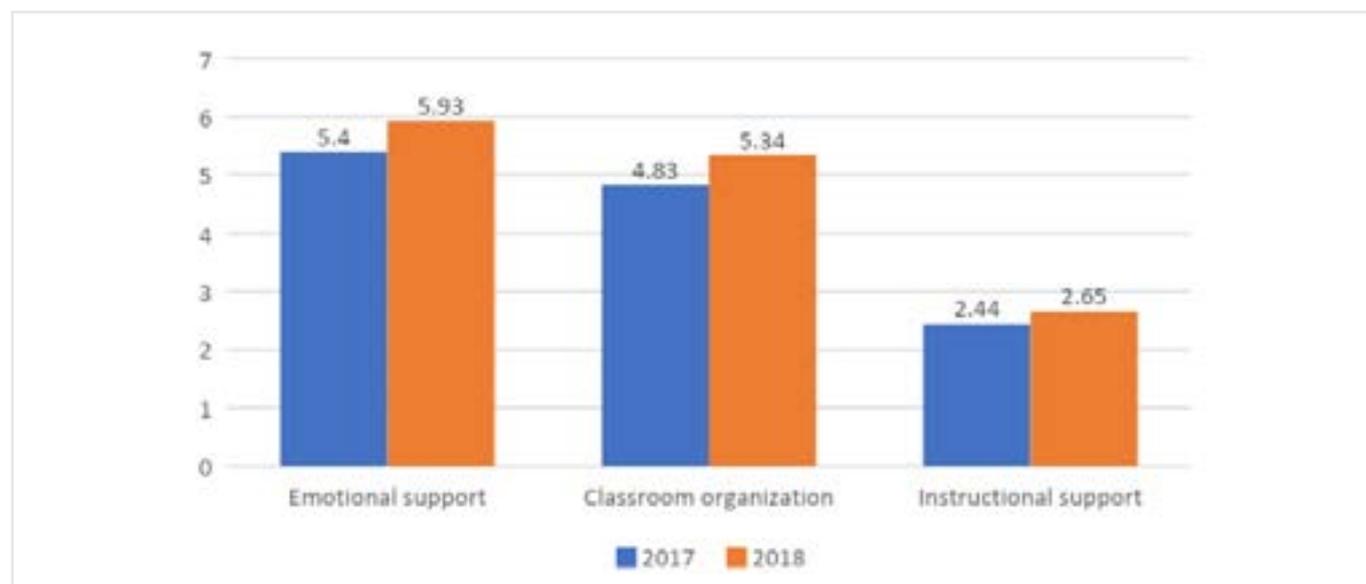


Figure 3 CLASS mean domain scores (2017/2018); Source: MoES data



Mainstreaming of inclusive education in ECE

A comprehensive model on inclusive education was developed within the context of the project and included in the National Concept for Inclusive Education. This was taken as a framework for mainstreaming inclusive education throughout preschool education. The project enabled 33 schools to accept children with SEN through provided teacher learning materials and trained educators. This was facilitated by ensuring that inclusive education was an integral part in all developed TLMs and training courses for preschool teachers, administrators, and mentors.

While the existing legal framework for inclusive education, the availability of some trained educators, quality TLMs, and regulatory acts are a good foundation for inclusive education, the system also needs incentives for school administrators and parents to enrol children with SEN. Doing so is often considered to be more hassle than benefit. Interlocutors of the project noted that implementing inclusive education is a complex and costly endeavour. Therefore, coordinating, and mobilising available resources at the local level is critical.

Implementation of cost efficiency strategies and network-building

Based on the World Bank's Public Expenditure Review of the Kyrgyz Republic (2014), which indicated that preschool coverage could multiply four-fold without increasing costs, the project successfully applied a shift-based approach. This entailed delivering preschool education in several shifts with alternating groups of children per day, thus increasing capacity without demanding more infrastructure (other than an increase in human resources). This approach reduced the costs of preschool education per hour and increased coverage. Interlocutors agreed that this model of preschool education was successful.

[Table 1](#) displays preschool education enrolment in the regions with the highest poverty rates, and [table 2](#) displays the cost per student for traditional full-day care and half-day programmes.

The project was able to leverage contributions from local authorities to integrate kindergartens and school preparation classes into existing schools. Local contributions created ownership and improved the initiative's cost efficiency. No additional rent or building maintenance costs were created.

Table 1. Enrolment in preparation classes in the regions with the highest poverty rates; Source: MoES data

	2015–2016			2016–2017			2017–2018		
	Batken	Jalalabad	Naryn	Batken	Jalalabad	Naryn	Batken	Jalalabad	Naryn
Number of students enrolled in preparation classes	10,110	21,730	5,870	13,351	30,230	7,900	11,541	26,226	6,894
Number of children from poor households	4,165	9,800	2,230	4,940	9,734	2,986	4,674	8,549	2,013
Percentage from the poorest households	36%	45%	38%	37%	32%	38%	40%	33%	29%
Poverty rate	41%	45%	38%	37%	32%	38%	40%	33%	29%

Table 2. Cost per student based on type of preschool institution (in Kyrgyz Som, utilities not included); Source: MoES data

	Half-day approach funded by the project (3 hours)		Traditional full-day state kindergarten (8 hours)
	School Preparation Classes	Community-based Kindergarten	State Kindergarten
Rural/cost per hour	4,435/1,478	9,474/3,158	37,820/4,727
Urban/cost per hour	4,015/1,338	7,661/2,553	33,286/4,160

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FEASIBILITY OF SCALING

The scalability of the successful elements of the project—while maintaining their potential for impact—will now be discussed. This scaling feasibility analysis is loosely based on suggestions from the World Health Organization (WHO, 2010) framework for scaling up health innovations, as well as research on scaling education innovations (Krainer, 2015; Slavin, 2008).

The implementation of preschool education in Kyrgyzstan was a success, as the overall coverage was extended significantly, especially for the most socioeconomically disadvantaged populations. However, two different directions might further increase the impact of preschool education. First, preschool education in Kyrgyzstan requires not only more coverage but also sustainable changes in classrooms, whereby knowledge and ownership can be transferred from external forces to teachers and schools (Coburn, 2003). Second, inclusive preschool education needs to be scaled up.

The implementation of large-scale initiatives in education depends on high-level government support (UNESCO, 2010). The MoES has such decision-making authority, so it is suggested that MoES, together with its service system, take the lead on the scaling process. Successful scaling also requires the active participation of the organisations involved in promoting and facilitating inclusive preschool education. These include regional professional development institutions, teacher associations, social and health services, parent associations, and NGOs.

Furthermore, strategic choices need to be considered for scaling inclusive preschool education. In the WHO's scaling up framework (2010), vertical and horizontal scaling up approaches are differentiated. Vertical scaling is defined as institutionalisation, including policies and legal frameworks. Horizontal scaling includes the expansion or replication of innovations.

Kyrgyzstan's inclusive education plan for 2019 to 2023 built the legal foundation for scaling up inclusive education. The legal act includes implementing an inclusive approach to preschool education, such as inclusive teaching and training and professional development. In 2020, the educational standards for preschool education and childcare were released, which encompassed the inclusive education requirements for preschool education. The two legal documents form the foundation for further horizontal scaling approaches.

To expand inclusive preschool education per a horizontal scaling strategy, several approaches should be considered. These include information dissemination and advocacy, networking and resource mobilisation, continuous professional development, the transfer of innovation ownership, and extended research.

Information dissemination

The MoES should take the lead on information dissemination and advocacy, thus making information freely available on its own as well as on subsidiary websites.

The following should be noted regarding key documents, TLMs, toolkits and practical guides that are relevant to preschool, and inclusive education: a large volume of TLMs, training courses, and other materials exist in Kyrgyzstan. In recent years, additional high-quality materials were developed for different projects and activities. These documents were developed by different organisations and implemented across various projects. Interlocutors suggested to aggregate all the existing materials and documents into a common knowledge base. For effective scaling, it would be important to collect, process, review, and organise these materials. Access to such systematised, quality material would be invaluable to educators and key stakeholders.

The TLMs produced during the present project could be strengthened and embedded into one such framework. However, experts agreed that the existing TLMs and other documents need to be updated and reviewed to conform to current research, practices, and the educational standards released in 2020.

Scaling inclusive education through resource mobilisation, networking, and advocacy

One of the remaining obstacles to inclusive preschool education is the question of how this can be achieved. While the project was able to jumpstart the process, there is ample opportunity to scale inclusive education further. Successful scaling will

require establishing and strengthening a national network and regional competence hubs to extend the coverage and quality of inclusive education. The coordination of key stakeholder networks should be implemented at the national level by the MoES. It should be noted that the role of the MoES, as the national driver of the process, cannot be overstated.

The government's long-term strategy to expand inclusive preschool education can be supported through the alignment of key stakeholders. Research indicates that networks, shared vision, and mutual accountability are conducive factors to scaling up educational innovations (Cobb & Smith, 2008). Scaling inclusive education, therefore, requires effective collaboration among diverse organisations on national and regional levels. These include parents' associations, NGOs, and medical, social, and educational institutions.

A national network and regional hubs can act as support systems for teachers and parents at regional and national levels, ensuring knowledge exchange as well as funding. The establishment and strengthening of national networks and the regional hubs of key stakeholders can mobilise available resources for inclusive education. Such networks could, for example, benefit from including civil society organisations, rehabilitation centres, parent associations, and other related organisations. Fostering cooperation among professional development institutions, universities, teacher associations, parent associations, health organisations, and NGOs is essential.

At the same time, parental associations can support the implementation of inclusive education through knowledge and practice exchange. This could be further supported through the establishment of knowledge and practice hubs, as well as through unifying and mobilising healthcare services, educators, NGOs, and parents.

Network and advocacy strategies might further benefit from coordinated events and activities that provide a platform for the exchange of best practices and research among key stakeholders. These events could include roundtables, open house events, and conferences.

It is also important to note that the implementation of inclusive education is resource intensive. Therefore, such implementation must also address issues such as overcrowded classrooms, which often contribute to the limited time and attention given to children with SEN. Interlocutors worry that schools frequently deny children with SEN from enrolling, citing overcrowding as a factor. As most schools are indeed overcrowded, this results in severely limited accessibility to schooling for children with SEN. This issue can either be addressed by way of legal sanctions, which does not solve the issue of overcrowding, or by way of incentivising the enrolment of children with SEN for schools. Offering additional human resources or a decrease in class sizes when a child with SEN is enrolled in a school could serve as possible incentives.

Continuous professional development

The success of scaling in education depends highly on teachers as 'upscalers' of innovative ideas and practices. This project points at some elements that could help teachers in Kyrgyzstan to become such upscalers. In terms of the development and localisation of TLMs and related training activities, there are two important aspects to scaling. First, scaling entails a holistic approach to TLMs. Second, continuous training for educators, instead of one-off training courses, should be established.

The Republican Teacher Training and Retraining Institute and its local structures could be a suitable actor for coordinating professional development at the regional and local levels. At the local level, teacher associations could promote and strengthen best-practice approaches for inclusive education. On the other hand, one-off training courses and workshops have dominated training activities so far. These trainings have been implemented widely across the country, so scaling should happen in terms of ensuring continuity. Traditional in-service courses might benefit from expanding recently adapted online courses, complemented by new approaches such as study groups and action research. Furthermore, teacher associations should be actively involved in the professional development process to include teachers' needs and embed the learning process in job activities. Funding by national and local institutions (universities, teacher college, schools, etc.) should be used for this purpose.

For quality assurance and to streamline learning activities, the Republican Teacher Training and Retraining Institute appears to be a suitable actor for the accreditation and coordination of TLMs and professional development trainings. Professional development on the job should be supported by research and development. For comprehensive elaboration, see the section below on research and development. All the interlocutors in the present study agreed that it is necessary to develop sustainable organisational mechanisms for professional development and methodological support for teachers and educators. It was recommended that the coverage of professional development be enhanced through teaching associations that offer teaching workshops at the school level.

Expanding usage of standardised assessment tools

The development and improvement of preschools and inclusive education must be supported with accompanying scientific research. The Republican Teacher Training and Retraining Institute, in cooperation with other teacher training institutions, could support didactical research and innovation at the national and regional levels using the project's standardised tests. The institute is in a position to play a role in creating a mechanism for the modernisation of programme content and to monitor and evaluate programme implementation. This would ensure an evidence-based approach for policy and practice. In addition, teacher

associations could contribute to the body of empirical evidence on what works best. Teachers should be supported in implementing the validated EDI and CLASS instruments to reflect and improve teaching practices. This would ensure a continuous learning process and foster links between research and practice.

It should be noted that exploring the effectiveness of preschool interventions requires a comprehensive M&E system. Therefore, assessment results should be aligned with other existing educational assessments in Kyrgyzstan, such as NOODU, EGRA, READ, and PISA. However, the use of such instruments is not institutionalised beyond project activities. To foster didactical research and innovation at the national and regional levels, systematic implementation will be required.

5

RECOMMENDATIONS

Based on the identified innovative features in this project, as well as the brief discussion of how these features could potentially be scaled, the following section highlights how scaling goals can be achieved in the context of Kyrgyzstan.

Successful scaling depends on the establishment of a culture of continuous learning and development across the whole educational system (Krainer et al., 2018). The activities need to have impact at the national, local, and individual levels to ensure innovation ownership across the system.

It is recommended that centralised and decentralised mechanisms for continuous learning, support, and resource mobilisation be developed.

- Centralised support mechanisms at MoES include: information dissemination and advocacy, coordination of the network and related activities, and the alignment of assessment instruments, legal frameworks, and long-term policies.
- Decentralised mechanisms at the local and school levels include: resource mobilisation through knowledge hubs, professional development through teacher and didactic associations, and school-based research with EDI and CLASS tools.

Advocacy and knowledge dissemination

MoES should establish continuous learning opportunities with the support of advocacy and knowledge dissemination. To accomplish this, the following are recommended:

- Establish an updated knowledge base on the website of MoES or suborganisations, to include TLMs, toolkits, guides, and legal documents.
- The knowledge base should incorporate information about various organisations involved in promoting preschool and inclusive education, including contacts, thematic priorities, and activities.
- Establish a newsletter for information dissemination on recent activities and publications.
- Establish knowledge exchange platforms, such as open events, roundtables, and conferences.

- Information dissemination should be pursued through active outreach and the provision of information to children with disabilities and their parents about the right to inclusive education and available support systems.

Networking and resource mobilisation

Strengthening a network with a common vision can be significant for scaling (Cobb & Smith, 2008). Such a network could be used as an important resource for implementing inclusive and preschool education. This could be achieved through:

- Organising regular meetings, knowledge exchanges, and events (e.g. roundtables, lectures, and webinars).
- Coordinating and supporting the activities of various institutions, such as schools, teacher education and research institutions, administrations, parent associations, health organisations, and NGOs linked to preschool and inclusive education. Active outreach and information dissemination on the current events and activities of key stakeholders should be conducted.
- Strengthening the role of parent associations linked to inclusive education. Parents might contribute as experts to professional development, promote and disseminate knowledge, and act against prejudices.
- Establishing local hubs, such as health and social services, educational institutions, parent associations, and other key stakeholders. The unification of resources could enhance the availability of services to children and their parents.

Continuous professional development

A culture of learning and innovation depends on continuous professional development (CPD) (Roesken-Winter et al., 2015). Innovations coincide with new expectations towards teachers, educators, and schools, and continuous professional development enables teachers to cope with these demands. In 2020, new educational standards for preschool and inclusive education in Kyrgyzstan were developed, resulting in new demands towards educators and schools.

The Republican Teacher Training and Retraining Institute adapted and implemented the training courses developed in the context of the project. In October 2020, an online version of the course was introduced. Based on past training course implementation experiences, it was determined that the role of the Republican Teacher Training and Retraining Institute and its local organisations could be strengthened and extended. The following are suggested for this purpose:

- Promote and support continuous on-the-job professional development, including collaborative practices, teacher inquiry, study groups, and action research. This should be instead of classical standalone in-service trainings.
- Complete in-service trainings with recently developed online trainings for continuous professional development.
- Enhance the coverage of in-service professional development by having the Republican Teacher Training and Retraining Institute offer certifications for professional development to NGOs and related organisations.
- Involve teaching associations in professional development at schools at the local level. This would enhance the ownership and dissemination of innovative approaches to teaching and learning, fostering the practical application of knowledge while strengthening networks.

Research and development

The simple enrolment of a child in a preschool should not be a marker of success unless that child's educational needs can be fully met. Continuous reflection on practices and development could contribute to M&E and to professional development.

The Republican Teacher Training and Retraining Institute and its local organisations could effectively link didactical research, practices, and professional development. The following are recommended for this purpose:

- Adapt continuous professional development courses in a research-based way. The impact of these courses on teaching in classrooms should be evaluated continuously.
- Involve teacher associations in didactical research to guide the modification of professional courses and collect best practice examples.
- Involve schools in research projects to strengthen M&E, and quality development. The schools could be supported to investigate teaching quality and student development using the assessment tools CLASS and EDI.
- Align preschool data collected using the CLASS and EDI tools with other important assessment instruments in Kyrgyzstan, such as NOODU, EGRA, READ, and PISA. Aligning

the collected data and linking preschool data with other assessments would allow the impact of preschool education on development and achievement in school to be better evaluated.

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KIX EAP Learning Cycle Case Study, September 2021



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