Policy Brief

Edu-Tech in Uzbekistan

Blended Learning through Flipped Classrooms in the CAREC Region

Designing a Data-Driven Flipped Classroom Program

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Asif Razzaq and Rabia Nazir

Background

Learning poverty, defined as the inability of a child to read and understand a simple text by age 10", remains a critical challenge in Uzbekistan. Exacerbated by the COVID-19 pandemic, learning poverty in low- and middle-income countries has risen to 71%. Blended Learning (BL) and the Flipped Classroom Model (FCM) offer innovative solutions to improve student engagement, critical thinking, and personalized learning. However, digital infrastructure gaps, low digital literacy, and the absence of a universal learning platform impede progress.

This study focuses on:

1. Identifying key requirements for implementing FCM.
2. Evaluating feasible BL and FCM models.
3. Providing actionable policy recommendations.

The Uzbekistan study sample includes 72 students, 12 teachers, and four administrators from public schools with minimal digital infrastructure. The policy brief intends to provide actionable insights and recommendations for enhancing the readiness of the digital system in Uzbekistan for effective blended learning implementation.

The Education Context of Uzbekistan

The challenges faced by Uzbekistan's education sector include:

1. Teachers lack the required qualifications, and the curriculum is also outdated and needs improvement
2. Urban-rural disparities and gender inequality.
3. Limited funding and weak school governance.

Despite these barriers, digital transformation initiatives supported by platforms like Talim.uz and Kitob.uz, combined with a 76.6% internet penetration rate, indicate the potential for integrating

BL. The government made significant efforts during the Covid-19 pandemic that benefitted over 4.4 million students, yet issues such as low digital literacy and a lack of localized content persist. It is essential to close these gaps to maximize the impact of digital education reform.

Key Findings

1. The country schools are well-equipped with IT resources, but the lack of qualified teachers hinders the implementation of the FCM.
2. The users enjoy reliable internet quality, and the access and usage of IT devices among educators and learners are high.
3. Despite the government's support, additional initiative and financial support are needed to meet the school's comprehensive needs.
4. Over 25% of participants require training to use digital platforms effectively.
5. Universal broadband access at schools exists, but home broadband installation rates are low.
6. Significant challenges include low digital literacy, limited localized content, and no universal online platform.

Salient Features of FCM in Uzbekistan

1. Flexible Delivery: Students prefer receiving video lectures (VLs) at home, while teachers favor controlled delivery in the classroom.
2. Preferred Tools: Messenger, USB drives, and email are widely used for sharing content.
3. Content and Format: Students prefer short (5–20 minute) videos in local languages that cover specific topics or problem-solving exercises.
4. Balanced Workload: Both teachers and students emphasize avoiding burnout by balancing online and in-person tasks.
5. Teacher Motivation: Financial incentives, training, and shared responsibility for VL creation are crucial for effective FCM implementation.

Recommendations

Short-Term (0–1 year)

1. Training Programs: Conduct digital literacy and IT training for teachers and students to build confidence in using digital platforms.
2. Localized Content: Develop Uzbek- and Russian-language digital content tailored to the curriculum and ensure regular feedback mechanisms for course alignment.

3. Subsidized Internet: Partner with telecom providers to offer affordable broadband packages for students and schools, especially in rural areas.

Mid-Term (1–3 years)

1. Unified Learning Platform: Establish or adopt a single LMS supporting local languages and user-friendly tools for assessments and communication.
2. Improved Infrastructure: Fill remaining gaps in IT resources, ensure reliable internet in all schools, and provide technical support staff.
3. Teacher Incentives: Offer financial and professional rewards to teachers for adopting FCM alongside regular refresher training.

Long-Term (3–5 years)

1. Long-term financing: Long-term financing, either from the government's funds or through collaboration with the business sector, is needed to fund teacher's training, digital infrastructure procurement and upgradation.
2. Curriculum Reform: Integrate FCM concepts comprehensively into the national curriculum, emphasizing personalized instruction and blended learning methodologies.
3. Monitoring and evaluation: Develop scalable and sustainable methodologies to assess the enduring impacts of BL and FCM therapies.

Suggestions for the CAREC Region

1. ICT Investments: Provide locations with poor connectivity offline FCM alternatives and equip schools with necessary IT resources.
2. Empowering educators: Develop uniform training resources for utilizing FCM that provide continuous support to teachers.
3. Adaptive Digital Strategies: Develop FCM models that are adaptable to various regions' requirements while safeguarding privacy and data integrity.
4. Community Involvement: Parents, educators, and other key stakeholders should participate in developing FCM to optimize resource utilization and support.

Call for Action

Uzbekistan's policymakers must invest in digital literacy, localized information, and cost-effective connections to close the digital divide and enhance educational institutions' capacity to implement FCM. For sustained progress, policy stakeholders need to Enhance infrastructure,

boost teacher motivation, and revise curriculum. Cooperation among governmental entities, the corporate sector, and international organizations is also essential.