China, People's Republic of: Developing Students' Core Competencies and Reducing Rural-Urban Disparities in Primary Education through the Use of Information and Communication Technology

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Developing Students' Core Competencies and Reducing Rural-Urban Disparities in Primary Education through the Use of Information and Communication Technology</th>
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<tr>
<td>Project Number</td>
<td>52237-001</td>
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<tr>
<td>Country</td>
<td>China, People's Republic of</td>
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<tr>
<td>Project Status</td>
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<td>Project Type / Modality of Assistance</td>
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| Source of Funding / Amount | TA 9747-PRC: Developing Students' Core Competencies and Reducing Rural-Urban Disparities in Primary Education through the Use of Information and Communication Technology
Technical Assistance Special Fund
US$ 400,000.00 |

Strategic Agendas
Inclusive economic growth

Drivers of Change
Governance and capacity development
Knowledge solutions

Sector / Subsector
Education - Pre-primary and primary
Information and communication technology - ICT industries and ICT-enabled services

Gender Equity and Mainstreaming
Gender equity

Description
The proposed knowledge and support technical assistance (TA) will increase enhanced teaching, learning, and support systems and instructional resources using information and communication technology (ICT) to develop students’ core competencies and reduce rural-urban disparities in primary education in Gansu Province, People’s Republic of China (PRC) through policy advice, capacity development, and research. The Government of the PRC requested this TA from the Asian Development Bank (ADB) to deliver high-quality and balanced primary education. Following an ADB mission in March 2019, ADB and the government reached an understanding on the TA objectives, scope, implementation arrangements, costs, and terms of reference for consultants. The TA is included in ADB’s country operations business plan for the PRC, 2018 -2020.

The TA will have three outputs to address outdated teaching, learning, and support systems and resources for the development of core competencies, especially in rural areas:

(i) existing teaching, learning, and support systems and resources and use of ICT in primary education assessed; (ii) national and international good practices and lessons in building students’ core competencies and addressing rural-urban disparities in primary education through the use of ICT introduced; and (iii) new or improved ICT-enabled teaching, learning, and support systems and resources in primary education piloted. These outputs will result in the following outcome: enhanced ICT-enabled teaching, learning, and support systems and resources in primary education increased. The TA will be aligned with the following impact: high-quality and balanced primary education delivered.
Facing a rapidly changing environment as the country transitions to a knowledge-based, innovation-driven, and creative economy, the PRC Ministry of Education (MOE) in 2014 initiated a new round of curriculum reform that emphasized the comprehensive individual development of each student with a sense of responsibility and practical and innovation skills instead of focusing strictly on subject knowledge and examination scores. As part of the reform, core competencies for each level of education have been identified and incorporated into the curriculum. Integrated practice activities have also been introduced to primary education. The reform has further prioritized the development of instructional resources through the use of ICT, transforming teaching and learning methods into student-centered and problem-solving and project-based, further linking students and providing enriched learning opportunities for students through the involvement of a wider society, adopting diverse assessment measures to track student progress and devise individualized instructional strategies, promoting teachers' professional development, and strengthening school-based research and development activities.

The China Education Modernization 2035, issued in February 2019, reemphasized these priorities and outlined more specific measures. At the same time, the China Education Modernization 2035 recognizes disparities in 9-year compulsory education (primary and lower secondary education) between rural and urban areas and aims to achieve high-quality and balanced compulsory education by 2035.

Located in the northwest of the PRC, Gansu Province is poor, with gross domestic product per capita of CNY28,497 in 2017—the lowest gross domestic product recorded among all provinces in the PRC. It remains largely rural, with an urbanization rate of 46.4% in 2017, significantly lower than the national average of 58.7%. Of 6,172 primary schools in Gansu Province in 2017, 4,675 (75.7%) were in rural areas. There were also 5,328 village primary teaching facilities that did not teach all primary grades (1-6). Urban primary schools are distinct from village primary teaching facilities. Whereas at urban primary schools teachers teach just one subject, at village primary teaching facilities teachers teach multiple subjects.

Because teachers are not attracted to work in rural areas, there is a shortage of qualified English, art, music, and physical education teachers in rural areas. Moreover, village primary teaching facilities have significantly less instructional resources, and provide less diverse learning opportunities for students than urban primary schools. Working conditions in rural areas— and therefore the challenges that rural teachers face—differ from urban areas, and training programs tailored to the needs of teachers in rural areas are scarce. Such training programs are needed to implement the curriculum that emphasizes the development of students' core competencies, requiring fundamental changes in teaching-learning methods. Consequently, students in rural areas, especially at village primary teaching facilities, are disadvantaged in developing core competencies.

Gansu Province’s Thirteenth Five-Year Education Development Plan reflects the condition described above. It also mirrors the priorities for national curriculum reform. As of March 2019, significant progress has been made in deploying qualified teachers to rural areas; providing training for teachers in rural areas; equipping all primary schools, including village primary teaching facilities, with ICT (computers, interactive whiteboards, and videoconferencing equipment) and broadband internet connections; providing school break rooms, lunches, and bus services at rural primary schools and village primary teaching facilities; and shifting emphasis to the comprehensive development of each individual student by strengthening art, music, physical education, and school-based integrated practice activities.

Lanzhou, the capital of Gansu Province, is at the forefront of efforts to reform education in the province. The municipality has 742 primary schools (of which 259 are in rural areas) and 154 village primary teaching facilities. There are two national certified preservice and in-service teacher-training institutes (Northwest Normal University and Lanzhou City College) and provincial certified in-service teacher-training institutes (Lanzhou Institute for Education Research, Lanzhou Branch of Beijing No. 2 Experimental Primary School, and Lanzhou Experimental Primary School), as well as the Lanzhou Audio-Visual Education Center, which supports schools, teachers, and students. Training in the field of ICT is multimedia equipped, while most rural primary schools and village primary teaching facilities have at least one classroom that is multimedia equipped. The use of interactive whiteboards is common in Lanzhou, even at village primary teaching facilities. Since 2018, it has been possible to connect classrooms at urban and rural primary schools and village primary teaching facilities through videoconferencing to overcome the shortage of qualified teachers in rural areas. Moreover, some advanced urban primary schools use student information and learning management systems, accessible via mobile phone, where teachers assess each student’s progress after each lesson and provide feedback to students and their parents. They also encourage subject teachers to collaborate in planning, preparing, and delivering lessons around common themes.

However, except at advanced urban primary schools, many teachers still rely on teaching-learning methods that emphasize the acquisition of subject knowledge rather than the development of students’ core competencies. Teachers are not sufficiently encouraged to collaborate in planning, preparing, and delivering lessons. Instructional resources to support teachers in adopting more student-centered and problem-based and project-based methods are scarce, and the use of formative and diverse assessment measures to track student progress and devise individualized instructional strategies is rare. Teachers use ICT more for delivering subject knowledge than for developing students’ core competencies. While classroom at urban and rural primary schools and village primary teaching facilities can now be connected (para. 6), its effectiveness in developing core competencies, especially for students at village teaching facilities, is unknown given that their learning and home environments differ considerably, and joint planning and preparation of lessons between these schools and teaching facilities are not conducted. These issues are common not only in Lanzhou and the rest of the PRC, but also in other countries. More research is needed, for instance, on how the development of core competencies could be integrated into the curriculum and lessons; what teaching, learning, and support systems and instructional resources could better help develop students’ core competencies; how ICT could be used to develop students’ core competencies and adapt the curriculum to individual student needs, without creating gender-based differences; and how ICT could be used to reduce gaps in education service delivery and quality.

Impact
High-quality and balanced primary education delivered (China Education Modernization 2035 and Gansu Province Thirteenth Five-Year Education Development Plan)

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<tr>
<th>Project Outcome</th>
<th>Description of Outcome</th>
<th>Progress Toward Outcome</th>
<th>Implementation Progress</th>
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<tr>
<td>Status of Implementation Progress (Outputs, Activities, and Issues)</td>
<td>Existing teaching, learning, and support systems and instructional resources and use of ICT in primary education assessed</td>
<td>National and international good practices and lessons in building students’ core competencies and addressing rural-urban disparities in primary education through the use of ICT introduced</td>
<td>New or improved ICT-enabled teaching, learning, and support systems and instructional resources in primary education piloted</td>
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<td>Geographical Location</td>
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<th>Summary of Environmental and Social Aspects</th>
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<td>Involuntary Resettlement</td>
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Consulting Services
ADB will engage the consultants following the ADB Procurement Policy (2017, as amended from time to time) and its associated project administration instructions and/or staff instructions.

Procurement
The TA resources will be disbursed following ADB’s Technical Assistance Disbursement Handbook (2010, as amended from time to time).

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Timetable
Concept Clearance
17 Apr 2019
Fact Finding
13 Mar 2019 to 18 Mar 2019
MRM
-
Approval
11 Jun 2019
Last Review Mission
-
Last PDS Update
27 Sep 2019

TA 9747-PRC

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<th>Approval</th>
<th>Signing Date</th>
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Financing Plan/TA Utilization

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<td>Gov</td>
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