Every Child Learns
UNICEF Education Strategy 2019–2030

Learning assessment; system strengthening; data and evidence

Strengthening the national assessment system in India through the new National Achievement Survey improves assessment of children’s learning outcomes

Every child has the right to learn. India has one of the largest school systems in the world, with over 240 million children enrolled in nearly 1.5 million schools with 9 million teachers. However, learning outcomes remain a key challenge. UNICEF has supported the monitoring of learning through a robust national learning assessment which covered 2.2 million children in Grades 3, 5 and 8. Consequently, India began disseminating results in a more impactful way by disaggregating them at the district level where policies are implemented; and by linking them explicitly with learning outcomes as defined by the curricula to support children in learning.

Problem: While National Achievement Surveys (NAS) had been conducted in India since 2002, various technical and operational issues prohibited accurate assessment of student learning in the country. This includes rote-based cognitive tasks, weak monitoring mechanisms, non-user-friendly reporting, poor dissemination of findings and limited use of assessment data in educational programme and pedagogical interventions.

Solution: UNICEF India embedded technical support staff within India’s National Council of Educational Research and Training (NCERT) to accompany each step of the NAS with assured high technical standards. This included: test development, sampling, field operations, monitoring, analysis, reporting, dissemination and use of NAS findings. As a result, the NAS 2017 was competency based and clearly linked to learning outcomes with results that could be fed back into improving classroom instruction.
Promoting 21st century skills within the education system

Over the last two decades, India has made great strides in improving access to quality education. However, half of children in primary school – or nearly 50 million children – are not achieving basic proficiency in reading and mathematics. In rural areas, one child out of three in Grade 5 (Class V) is unable to read a Grade 2 (Class II) level text (ASER, 2017).

Assessments are a powerful way to improve learning, as results can guide curriculum, needs-based teacher professional development, appropriate learning resources, quality instruction and resource allocation. In India’s school system, assessment is mostly limited to certification through exams and to summarization of learning levels through the NAS and school-based reporting. Moreover, the acquisition of the right skills and competencies – which includes non-routine analytical and interpersonal skills – are critical for young people to take advantage of opportunities and to successfully transition from school to work. In response, UNICEF has advocated for the promotion of 21st century skills within the education system, including in the curriculum, assessments and teaching and learning practices.

Key interventions to make the national learning assessment more robust

With a relatively modest investment of US $300,000 and continuous technical engagement with the Ministry of Human Resource Development and NCERT, UNICEF helped strengthen key technical aspects of the NAS such as instruments, sampling, quality assurance, analysis and reporting. For the first time, learning assessment in India was linked to learning outcomes, connecting what children should be expected to know and what they can do.

UNICEF trained NCERT officials in sampling design, and selection of sampling schools and children through scientific sampling procedure for 701 districts in three different assessment grades. A core team at NCERT was formed to further train state and district coordinators for implementing NAS in the country. This core team directly trained 1,400 district coordinators through 12 regional workshops. Operational manuals, videos, leaflets and scripts for field investigators were also developed for the first time to increase the efficiency of the training and to ensure the standardized implementation of the NAS in the country. A stringent three-tier independent quality monitoring mechanism was established at national, state and district levels involving inter-ministerial departments to ensure the fairness of administration and quality of data. Optical Marked Response technology was employed to capture the learning and background data accurately and in a timely manner, and dedicated coordinators were trained at each district to manage learning achievement data at the district level.
UNICEF also provided critical technical support to NCERT through the American Institute for Research in analysis of NAS data and engaged in technical discussions around the validating of instruments, advanced psychometrics analysis, scaling methodology, and proficiency standards for meaningful reporting of learning levels. The key shifts from earlier traditional practices are summarized in the illustration below, with the most important of these marked by a star.

The provision of technical support was realized by embedding a UNICEF staff member with relevant technical expertise into NCERT, the government body responsible for learning assessments. With a relatively small investment, UNICEF became the Government’s partner of choice on the national learning assessment. It was recognised jointly alongside technical government bodies as shown in the following tweet of India’s former Secretary of School Education:

Compliments to @ciet_ncert & @UNICEFIndia for comprehensive analyses of NAS data to assess school education. The report not only brings out "what" is wrong but also "why" it is so to enable each District and State to draw out roadmap for improvement. Need to build on this effort.
Preliminary results, lessons learnt and next steps.

The NAS is now a more reliable and robust learning assessment in terms of scale, scope, technicality and ownership from the government. Moreover, a culture of using data and evidence in educational planning and practices has evolved to support children in learning. When teachers applied comprehensive, continuous evaluations in their classrooms, there was a 15 per cent increase in students’ learning achievements. The government of India used NAS data in large-scale teacher professional development to train 4.2 million teachers and school leaders. NAS data was also integral to the development of various school quality indices which feeds into differential educational planning, such as linking plans to resource allocations and governance.

The post-pilot scale-up has been possible due to the following:

- NAS items are linked to learning outcomes, and they assess students’ competencies instead of memorization of content. This shift from content to competencies is promoting 21st century skills such as problem solving and critical thinking in teaching and learning practices.
- The internal capacity of the NCERT, which assists and advises the central and state governments on policies and programmes for qualitative improvement in school education, has increased in technical aspects and implementation of learning assessments. NCERT also has shown remarkable progress in acquiring scientific sampling skills in assessment for other grades without the assistance of external technical agencies.
- Operational and training procedures for the national assessment have been standardized across 701 districts in 36 states and union territories.
- The quality of data has improved, and timely reporting was possible due to stringent monitoring mechanisms and use of technology in data capture and management, automation of district specific reports and videos explaining the use of data.
- The 2017 national assessment conducted in India covered 240 million children in primary and secondary school across all the states and union territories. This model of assessment can be applied for any large-scale student learning assessment with minimum adoptions.
- Post NAS 2017, NCERT designed an evidence-based, large-scale teacher professional development programme for 4.2 million teachers and school leaders to improve teaching. This government-led initiative is called, “Improving Quality of School Education through Integrated Teacher Training”.
- NAS 2017 results were used to develop the School Education Quality Index and Performance Grading Index supporting all states and union territories in planning, resources allocation and improving education delivery.

Cost effectiveness

Leveraging an investment of US $300,000, UNICEF’s contribution helped the Government of India improve its 2017 National Achievement Survey which reached 2.2 million children (in grades 3, 5 or 8) directly and 240 million children (in primary or secondary school) indirectly. This was a modest investment compared to the overall cost of the learning assessment to the Government of US $3.5 million.

<table>
<thead>
<tr>
<th>Grade 3 (Class III) children</th>
<th>Grade 5 (Class V) children</th>
<th>Grade 8 (Class VIII) children</th>
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<tbody>
<tr>
<td>53% acquired grade-level proficiency in mathematics</td>
<td>44% acquired grade-level proficiency in mathematics</td>
<td>39% acquired grade-level proficiency in mathematics</td>
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<tr>
<td>47% acquired grade-level proficiency in reading</td>
<td>47% acquired grade-level proficiency in reading</td>
<td>38% acquired grade-level proficiency in reading</td>
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</tbody>
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The impact on children enrolled in education:
UNICEF’s technical support to the new National Achievement Survey has helped strengthen the country’s robust national system to assess learning. Furthermore, India’s revamped NAS puts equity centre-stage, ensuring that learning outcomes are monitored and placed at the forefront for the decade to 2030 – so that “Every Child Learns”.

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