Evaluation Summary: Nali Kali – Curriculum Change and Early Learning Activity-based learning in Karnataka, India

Nali Kali, the government of Karnataka’s program in which teachers target instruction by dividing students into groups by ability, was found to lead to improvements in language skills for initially weak students in early grades.

I. CONTEXT

In India, a common curriculum has been established for each grade, requiring teachers to complete grade-specific textbooks within the school year. As a result, teachers tend to take a uniform approach in teaching material to a classroom of students, with little room to address students of varying ability levels. This causes particular challenges for students with low learning levels, who can find it challenging to catch up to their peers. Furthermore, the problem is intensified in multi-grade classrooms, which are common throughout India, as teachers must divide their time covering several different grade-specific curriculums. This approach is thought to be a major contributor to low learning levels in India (as of 2011, 48% and 24% of grade 5 students in India were found to only be able to read at grade 2 and grade 1 levels, respectively).

To address this issue, some governments have been testing alternative pedagogical approaches, including activity-based learning (ABL). In an ABL classroom, the curriculum is divided into several smaller units, with activities and learning materials tailored for each unit. The students are initially assigned to groups based on learning levels and abilities and can progress through the broader curriculum at their own pace. Activities are used to support skill development (such as cards with fun reading, songs, and role-playing scenarios). When the students feel they have mastered the content, they report to the teacher for a quick assessment before moving up the "learning ladder" to a more challenging skill.

II. PROGRAM DESCRIPTION

The Nali Kali program, implemented by the government of Karnataka, was first piloted in one block in one district in 1995 and has scaled up since. In 2007, Nali Kali was phased into grades 1 and 2 of all schools in the state with an enrollment of fewer than 30 students, and in 2009, it expanded to grades 1 and 2 of all Karnataka schools in which the medium of instruction was the official state language. In 2010, the program was extended to grade 3 in all participating schools.

As in other ABL programs, the curriculum is divided into sequential units that students progress through, with activities and materials provided for each step (for example, materials for grade 2 include a set of 50 reading books with...
increasing difficulty levels). Teachers are expected to focus much of their effort on supporting lower level students, and student are actively involved in the process by charting their progress through the different steps of the ladder. Instead of traditional assessments, tests given to each student as they advance up the ladder are used to evaluate student performance and progress.

Class size is limited to 30 students and one teacher per class, with students in grades 1-3 divided evenly between participating classrooms so that each class has a mix of grade levels. Each class consists of a preparatory activity (e.g. a song or dance), followed by instruction in groups, followed by an evaluation period to wrap up. On average, classes surveyed were divided into 4 groups with between 5 and 6 students per group.

Teacher receive training in Nali Kali instructional methods through a network of “master trainers” at the state, district, and block levels, who train teachers at the next level below. Teachers participate in multiple multi-day trainings per year (5 days before the start of the year and 3 days a couple of months in) as well as monthly meetings to discuss issues that arise.

III. EVALUATION DESIGN

The evaluation, conducted by researchers from Catalyst Management Services and Stanford University, used this gradual phase-in to compare the impact of Nali Kali on student performance in schools that had and had not received the program. 15 clusters throughout 11 districts were examined, with 3 schools in each of 1-2 Grand Panchayats (village governments) in each cluster surveyed. Assessments used were developed by an external agency and tested student language and math abilities at and below assigned grade level, as well as non-cognitive abilities (e.g. leadership and communication). Tests were conducted at the beginning and end of the 2009-10, 2010-11, and 2012-13 school years.

V. MAIN FINDINGS

When looking broadly at surveyed students, the evaluation found that Nali Kali resulted in significant improvements in language test scores (with an additional year of learning in a Nali Kali classroom associated with an increase of 2.2 percentage points) and leadership skills, but not mathematics scores or communication or social skills. The language skills that did improve were those at a grade level below that of the students’ assigned grade level, with no improvements seen in skills matching the student’s actual grade level.

These effects (as well as some improvements in math, communication and social skills) were concentrated in lower grades (which received the program) and were found to disappear as students moved to higher grades (specifically by grade 5). In addition, the program was found to be most beneficial for weaker students (those performing in the bottom half of all students in regards to ability level) at the beginning of the program, with no effect for students who performed above average from the start.
V. INTERPRETATION & IMPLICATIONS

These results suggest that the Nali Kali program is mainly beneficial for students who are initially performing below average. In addition, the finding that skills improved were those below a student’s assigned grade level indicates that the program can improve basic skills but was not effective in supporting higher-level learning. While Nali Kali seems to be able to help weak students overcome initial learning disadvantages faced, concerns include that 1) it had little impact on higher-performing students and 2) effects were found to disappear in later years of schooling. Whether these results could be improved by modifying program implementation is an area for further research.

VI. REFERENCES