

The Impact of Targeted Teaching on Secondary School Learning Outcomes in India

Sector(s): Education

J-PAL office: J-PAL South Asia

Sample: 300 government secondary schools

Initiative(s): Post-Primary Education Initiative (PPE)

Target group: Secondary schools Students

Outcome of interest: Enrollment and attendance Student learning

Intervention type: Tracking and remedial education

AEA RCT registration number: AEARCTR-0004138

Partner organization(s): Department of School and Mass Education, Government of Odisha, Transform Schools, Kusuma Trust

Low student learning is a persistent problem in secondary schools in developing countries. Many programs have encouraged instructors to teach to the learning levels of students in primary schools, but less is known about the effects of targeted instruction on secondary school students' learning outcomes. Researchers evaluated a secondary school readiness program, Utkarsh, that provided targeted instruction to students in Odisha, India.

Policy issue

Student achievement in secondary schools can vary substantially within the same classroom, affecting the learning of all students, even those at grade level. As more learners reach the secondary school level, reducing within-class variation in learning levels and improving foundational skills have gained crucial importance worldwide. Results from evaluations of primary school students suggest that teaching children at their learning level instead of grade level improves overall educational achievement. However, whether the same approach works in the post-primary level where the learning gaps are likely to be higher is an open question. Even if an approach is successful at the secondary level, how to scale remedial sessions effectively is unclear. How should the approach be designed: should teachers have more flexibility and autonomy in content delivery, or should lessons and content be more standardized?

Context of the evaluation

Despite gains in secondary school enrollment, the median 9th grade student is below grade-level in numeracy and language across India. Grades 9 and 10 mark a crucial transition for students into higher education, but are associated with a high degree of dropout. As a result of low preparedness and low levels of information retention, students are often unable to understand the advanced material needed to complete lower secondary school or pass their exams at the end of grade 10. At this critical juncture between lower and upper secondary school, students, especially girls, often drop out.

Odisha is one of the poorest states with some of the lowest literacy rates in India. Gross secondary enrollment is 77 percent, which is below the national average. In addition, minority and tribal groups make up 40 percent of enrolled students, further contributing to the complexity of this learning environment and highlighting the challenges with learning in schools that serve

marginalized communities. In Odisha, 50 percent of enrolled secondary school students fail to meet a basic international benchmark of mathematical knowledge while, in contrast, the top 5 percent of students outperform top students from other low-income countries.

Utkarsh (“Excellence”) is an intensive remedial program in Odisha that aims to help prepare students in class 9 to pass their 10th grade board exams by leveraging existing personnel and structure in the education sector. This program was developed by Transform Schools, People For Action (PFA) in collaboration with the Kusuma Trust UK (KTUK), and implemented in collaboration with the Odisha Department of School and Mass Education.



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Details of the intervention

Researchers partnered with Transform Schools, People For Action (PFA), and the Odisha Department of School and Mass Education to conduct a randomized evaluation to measure the impact of two variations of Utkarsh. Researchers randomly assigned 300 government secondary schools in the Jaipur and Dhenkanal districts to one of three groups:

1. *Standard group*: These schools received the full version of Utkarsh where teachers implemented the program’s topics and lesson plans according to a pre-specified schedule
2. *Flexible group*: These schools received a version of Utkarsh where teachers had more autonomy and partial flexibility to adapt topics and/or timelines according to the needs of their students.
3. *Comparison group*: These schools did not receive the Utkarsh program.

Utkarsh offers both remedial and grade-level instruction, enhancing learning for all students rather than focusing exclusively on students with the lowest learning levels. The Utkarsh program consists of three phases, each targeting a different learning level and designed to both bridge the gap for the lowest level learners and to improve the grade level knowledge of all students within a single school year.

- The Foundation Camp (FC) targets the weakest students, those about four or more grade levels behind, and builds their foundational skills. Students in this group receive four hours of remedial instruction every day over 18 school days. As students' learning outcomes improve, they move to the next learning group. This phase was implemented in the same way across both the flexible and standard formats.
- The Supported Learning Phase (SLP) targets medium-level students and develops applications of foundational knowledge. Students in this group receive three hours of remedial teaching each day for 45 school days. For the 'Flexible' group, teachers had flexibility with this phase in choosing lessons, order of implementation, and adjust time allocation for topics covered as per their classroom.
- The Consolidation Camp (CC) includes the entire class and focuses on grade-level material in preparation for the transition to grade 10 and its exams. Students receive 18 hours of grade 9 materials over six days. At the end of this phase, teachers again assess all students to determine their learning levels. This phase was implemented in the same way across both the flexible and standard formats.

People For Action (PFA) led training sessions for principals, District Education Officers, State Resource Group officials, and Master Trainers. The Odisha Department of School & Mass Education (SMED) trained teachers and implemented all other aspects of the program, such as materials distribution, with technical assistance from PFA. PFA was also responsible for supervising the training programs and conducting quality assurance visits during all the phases of the program.

During baseline the students were administered a short one-on-one demographic survey, and a group assessment of their Odia, Math and English skills. Midline/monitoring visits were conducted to see whether the study students were present or absent and if the program was implemented as intended. Researchers assessed students in English, Odia (the language of Odisha), Mathematics and Science at the endline, following the CC phase. The researchers also interviewed four teachers and the headmaster from each school at baseline and endline.

Results and policy lessons

Research ongoing; results forthcoming