

Young Discoverers Program - Puducherry

The State Project Office, SSA in collaboration with Azim Premji Foundation, Puducherry, initiated the Young Discoverers Program (YDP) in October 2015 as a two-year program. This program aims at contributing to the improvement of science teaching and learning in the district.

Context of Science Teaching in the district: There are several inputs that work in the favor of the district to improve Science teaching - Teachers are well qualified and the infrastructure for Science and computer labs are in place in most of the high schools. However, through our interactions in the field, we encountered certain practical challenges - The Science textbooks are more oriented towards rote learning, Students are given activities in the science classrooms; without any regard to the rationale or theory behind them, Understanding of basic concepts in science is particularly weak among the students of class 6-8 as they are often ignored, Non-utilization of lab equipment's and poor maintenance of science labs are largely prevalent in the district. Through the Young Discoverers Program, we are trying to rekindle the flair for science teaching and learning among the teachers, by bringing about greater focus on inquiry based learning in the science classroom for grades 6-8. This approach ensures that the students are given opportunities to question the phenomena, explore it scientifically, analyze and understand the principle behind it. Through this engagement with teachers, we are aiming to challenge and deepen their understanding of the science content and influence their practice. The YDP is one of the high-frequency engagements with science teachers using the medium of resource development.

Structure of the Program: The team visited all the 115 government schools with grades 6-8 to invite the teachers to be a part of the program. 28 out of 250 science teachers initially joined the program. At present, we have 35 teachers from 29 schools engaging with us. The program was launched with an initial visioning cum orientation program for four days. After induction, the teachers meet regularly for development of teaching resources, subject workshops and other professional development activities. These meetings are conducted on the first Friday with a government order and one Saturday of every month voluntarily. The meetings follow a cycle of Learn, Plan, Try, Reflect and Share. The group initially selects the upcoming lessons; discusses its purpose, curricular goals, learning objectives and defines the scope for inquiry, exploration and teaching aids; plans and tries the lesson in the classes; and the documented reflections are presented to the larger group for peer feedback. These ideas are shared to larger audience through platforms such as Thisaimaani, website and open TRC workshops. To cater to the diverse interests and learning styles of teachers, the program offers multiple modes of engagement. There are workshops, exposure visits, expert talks, resource generation meetings and classroom try outs. Over the past 14 months, 19 events, 10 classroom tryouts and one 3-day residential program have been organized spread across of 240 hours of engagement. An illustrative list of topics covered during these workshops include Magnetism, Periodic Table, Biodiversity, Electricity, Everyday Chemistry and Classification.

Reflection: The teachers have started showing more readiness for classroom try outs after having experienced the activities themselves during the workshop. The group has matured and is evolving as a peer-learning platform; teachers share their classroom experience, seek feedback from their peers, and clarify their doubts on content as well. There is a shift in the teaching practices towards inquiry where the classes include exploratory experiments and demonstrations and use of equipment's and audio visual aids than just lectures. There is more room for children to engage in the learning process, express their thoughts and the reasons behind the same.

This group of teachers have now started influencing their peers and have become goodwill ambassadors for the program. The ideas that are tried and tested with this group reaches other teachers across the district as well. The way forward is to reach the classrooms of all the teachers in the group and thereby create a larger sphere of influence to improve science education in the district.