RESEARCH UPDATE

Indicators of Effective Schools

A Study of Learning Guarantee Programme Schools in North East Karnataka

Introduction

Why are some schools successful in achieving the Learning Guarantee Program (LGP) measures while the others are not? What are the features that differentiate the schools that qualified for an LGP award and the schools that did not qualify? An attempt is made in this study to find answers to these questions. The pedestal for the present study is the "Learning Guarantee Programme" initiative undertaken by Azim Premji Foundation that allowed for comparison of schools based on their performance in the Programme. Under the programme, schools volunteering for participation had to achieve pre-determined levels on three measures to qualify. The three measures were:

Enrollment : 100 per cent of children in the 6 – 11 age groups in the habitation are enrolled in school

Attendance: Minimum of 90 per cent of the enrolled children attended at least 70 per cent of total of working days in school during the academic year

Learning achievement: Minimum of 60 per cent of all children enrolled in classes 2, 3, 4 and 5 scored 90 per cent on competency based tests

The present study was carried out among schools that participated during 2005, the last year of the programme in North East Karnataka.

Methodology

The schools were divided into four categories –

Category 1: Consistent qualifier schools, participated in LGP and qualified for the award in all the three years – 2003, 04 and 05;

Category 2: Non - Consistent qualifier schools, participated in LGP and qualified for the award for one or two years but not in all three years;

Category 3: Schools which participated all the three years in LGP, but did not qualify for the award, but showed consistent improvement in performance;

Category 4: Consistent non-qualifier schools participated in LGP but did not qualify for the LGP award and whose performance was not consistent.

A data-mining approach, to identify the indicators of effective schools, coupled with school and classroom observation, was applied to examine the various indicators selected for the study. Indicators developed by the Child Friendly School Initiative (CFSI) of the Foundation being run in Shorapur, Karnataka, were employed. Data was collected by teams of trained interviewers. Two interviewers spent two days each in the sample schools. The sample size comprised 102 schools including category 1 – 14, category 2 – 18, category 3 – 36 and category 4 – 34. While schools in category 1 were purposively selected (almost all in the category) the others were identified from their respective categories using a random process.

Indicators

Under the CFSI, 5 groups of characteristics of quality schools have been identified. These include:

- community participation,
- school environment,
- classroom environment,
- classroom learning process and
- teachers' professional development.

Indicators are developed for each characteristic covering a total of 36 sub fields. These indicators are comprehensive in nature and hence, these indicators are used in the study to see how many of the indicators are associated with the LGP participating schools. Of the 214 indicators, 142 indicators, mostly quantitative in nature from all the 5 characteristics, were selected for this study. The report is based on the analysis of the quantitative data collected for the indicators in terms of their presence or absence in the 102 sample schools.

Findings

The findings of the study are summarised below. The presence (1) or absence (0) of the indicators is used as the basis of analysis. Mean score for each indicator is calculated for all categories of schools. The mean for each category of schools would thus lie between 0.0 (which means none of the schools in that category demonstrate that indicator) and 1.0 (the indicator is present in each school in that category). A mean score of 0.9 or more is considered as 'strongly present' (the indicator is present in at least 90 per cent of the schools in the category) while a mean score of 0.1 and below is considered as 'largely absent'.

Of the 142 indicators studied, 27 are fully present in all the category 1 schools (mean score of 1.0) while only 3 are present in category 2 schools. In category 3 and 4 schools this number is 0 and 1 respectively. Similarly, 48 indicators are strongly associated with category 1 (mean of 0.9 or more) while the corresponding number for category 4 schools is only 10.

Indicators	Category 1 Schools	Category 2 Schools	Category 3 Schools	Category 4 Schools
Mean score 1.0 (fully present)	27	3	0	1
Mean score 0.9 + (strongly present)	48	27	16	10

This shows the wide chasm between the category 1 schools and others.

Strongly present indicators:

Community participation: 5 out of 13 indicators (38.5 per cent) are associated with category 1 schools. These relate to the School Development and Monitoring Committee (SDMC) existence and formation, maintenance of admission register and mid day meals.

School environment: 7 out of the 53 indicators (13.2 per cent) from this characteristic are associated with category 1 schools. These relate to safety, cleanliness and availability of drinking water.

Classroom environment: 9 out of 20 indicators (45 per cent) relating to classroom environment are associated with category 1 schools. The most striking aspect here is the group of indicators on 'girl child' - equal opportunity for the girl child is given in class leadership, she is grouped based on the learning needs and girls freely participate in sports activities.

Classroom learning process: From this characteristic 21 indicators out of 43 (48.8 per cent) are strongly present in these schools. These span a wide range of class room activities. Teachers come to school on time and utilise all the teaching hours assigned to them in teaching. Students are evaluated every month and remedial teaching is provided to the appropriate students. Subject wise competency based question papers are prepared by the teachers and used to measure learning outcomes. Progress reports are prepared for all students and shown to the parents.

Teachers academic development: 6 of the 13 indicators (46.2 per cent) are associated with category 1. According to the teachers, the training objectives are fulfilled and the training materials, seating, activities are all useful and in tune with the objectives of training.

In addition to the above, strongly differentiating indicators were identified where the mean score for category 1 schools is at least 0.9 and difference in means between category 1 schools and category 4 schools is 0.3 or more. There were 31 such indicators. These comprised

Community participation (1 indicator)
- The kitchen is kept clean

School environment (12 indicators)
- School premise is free of broken windows / doors, paper/ glass and other waste
- School premise has lawn, flower plants and trees
- School premise is maintained neat and clean
- The floor, walls, corners of walls and roof are free of cobweb and dust
- Children use waste basket and clean it every day
- Clean drinking water is stored in clean vessels daily
- Used water flows into the school garden
- Separate toilets for boys and girls, and are used
- Running water is available in the toilet tap and there is a mug
- The toilet's interior and the basin are free of stink and moss
- Toilets are cleaned daily under the supervision of teachers
- School toilet is in good condition

Classroom environment (2 indicators)
- Every class room has a designated learning corner
- Study corner has diverse and effective materials which help children in individual and group study

Classroom learning process (14 indicators)
- Number of hours teachers taught, and number of teaching hours assigned, match
- List of all classes and subject-wise lessons/ competencies are available
- Materials based on learning outcomes are available for each class and each subject, and are organized in enough quantity and kept wthin the reach of students
- All children are engaged in learning activities with necessary materials
- Learning material used suit the needs of planned learning / evaluation
- Teachers involve students in activities such as dialogue / question-answer / other suitable activities after the *Keli Kali* programme
- Based on the learning level, remedial teaching is given for students who are not up to the mark, who are evaluated once again to make sure that expected learning level is achieved
- Class-wise, 60 per cent of students have gained 90 per cent competency in all subjects as per the annual teaching programme
- Evaluation is done under the trimester system for classes 5 to 7 and the progress is recorded
- Subject wise competency based question papers are prepared by the teachers and used to measure learning outcomes

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- Answer books of students have been evaluated and they are shown to the students/ parents who have signed them

- Evaluation material / question paper is prepared / used based on learning standards

- Question papers are based / used on the fields of knowledge, application, analysis, consolidation

- Based on evaluation feedback all teachers have given remedial teaching to the needy students and have confirmed learning

Teachers' academic development (2 indicators)

- Trainers have acquired information from the school on the type of training required to become effective teachers

- The school calendar has been consulted before fixing the duration and dates of training

As can be seen above, the largest number of differentiators is again from the characteristic of Classroom Learning Processes.

Conclusions

The analysis seems to suggest that the indicators used in the study (selected from the CFSI program) are good measures of 'effective schools'. The 48 indicators strongly present in category 1 schools and the 31 'strong differentiators' can be used for assessing 'quality schools'. The findings in many ways confirm the findings of the studies carried out in 2004 and 2005. The consistent qualifiers have greater teacher involvement, good TLM in the school, cleanliness and good appearance of the school. The teachers in the category 1 schools travel that extra mile to achieve superior outcomes and spend extra time with the children.

The differentiators between category 1 schools and category 4 schools (which are perhaps representative of the average schools in the region) are particularly revealing. A bulk of these differentiators belongs to the classroom processes and the attitude and involvement of the teachers. They clearly point to the efforts put in by the teachers notwithstanding the environment and infrastructure facilities.

This update has been prepared by the Research and Documentation team, Azim Premji Foundation

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FOUNDATION UPDATE

Technology Initiatives

The Foundation has been experimenting with Computer Aided Learning through the use of CDs by children with teacher facilitation. Over the past three months, two master CDs were released-titled 'Division' and "Rainbow Toys – Addition". With this, the total base of master CDs has increased to 110 CDs, in 18 languages. In Andhra Pradesh, state specific content CDs were reviewed by the joint team of the Foundation and the Government.

Assessment Led Reforms

Learning Guarantee Programme (LGP) has been the vehicle for experimenting with assessment led reforms. Currently, this effort is going on in two districts each of Gujarat, Uttaranchal, Rajasthan and Madhya Pradesh. During the last quarter:

Gujarat team completed the base line and self assessment of 867 schools and conducted the second workshop for developing the assessment tools. Gujarat team has brought the assessment finalisation process for LGP, to a closure. Simultaneously, efforts were made to communicate with the participating school to understand the LGP better and how to bring about improvements.

Uttaranchal team conducted meetings with the head teachers in each of the 13 blocks to discuss the competency based approach of teaching-learning. A team of volunteers reached out to 497 schools to share information about last year's process, papers and issues in bringing significant improvement in the schools.

Rajasthan team completed 100 per cent of assessment in Sirohi district and 85 per cent in Tonk district. Head teachers and volunteers have been assigned to assess and enter the score on the answer sheets.

Madhya Pradesh team conducted a four-day workshop for Question Bank Development with members of State Council of Education Research and Training (SCERT), District Insitute for Education and Training (DIETs) of Datia and Vidisha, and some Cluster Resource Centre (CRCs).

Child Friendly School

Shorapur

This is an experiment being conducted currently in one block of Yadgir district, of Karnataka to identify the key