

# **Pedagogical Practices and Learning Achievement in Schools Participating in the Learning Guarantee Programme**

**A Qualitative Study**

**May 2004**

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## **1 INTRODUCTION**

### **1.1 Background**

Azim Premji Foundation has launched the *Learning Guarantee Programme* (LGP) for lower and upper primary schools in the educationally backward districts in North East Karnataka in collaboration with the Government of Karnataka. The programme aims at achieving the goal of universalisation of elementary education (UEE) in the rural government schools.

To find out empirically whether the incentive scheme was reflected in the in-school processes (especially the quality of teaching practices) and out of school social pressures (like commitment and involvement of members of the SDMCs), Azim Premji Foundation commissioned the Network of Enterprising Educational Ventures (NEEV) to take up a study. The study focused on the teaching practices generally followed by teachers of schools which had volunteered to compete for the reward under the LGP. The classroom practices of teachers which conformed to the learner centered approach to teaching and learning in formal school settings were taken to be "good practices" and their reflection in teacher and student behaviors were observed and analysed in relation to the school average learning achievement scores of students in the APF conducted tests as well as the awareness level of the members of the School Development Monitoring Committee (SDMC) about the processes which were expected to be gone through under the LGP. This report presents the methodology and the findings of the study in brief.

### **The Study Objectives**

The study mainly looked at the practices generally followed by schools which had participated in the LGP. The specific objectives kept in view through out the study included the following:

- a. to find out the extent to which the practices followed by the teachers reflected the pedagogical principles of learner-centered approach to teaching and learning processes
- b. to find out the extent to which the teaching practices contributed to the performance of students in terms of marks obtained in the tests conducted by the Azim Premji Foundation
- c. to find out the extent to which the members of the SDMC and the community showed interest in school's functioning
- d. to identify characteristics of the functioning of schools which were declared as Learning Guarantee Schools
- e. to capture on video some of the practices generally followed by the teachers of schools which participated in the LGP

### **Methodology**

The study involved a pilot phase followed by visits to the identified schools. The pilot phase was planned to give a hands-on experience for the researchers to interact with Education Department officials, school faculty, village community members and students. It was also meant to hone the researchers' observation and communication skills and assess the validity of the research tools. The pilot research also led to the firming up of the research design in terms of identifying the 'ingredients' of a good school and capturing it during the research study through a four-step observation/documentation module as follows:

1. Simple classroom observation.
2. Capturing the processes specially set up for LGP evaluation.
3. Documenting the teacher potential in the case study schools.
4. Evaluating a sample representative of students in each school.

The visits to the identified schools were in two phases. The first phase was a half an hour interaction in each school enabling the research team to establish the required rapport with the school staff. In the second phase, the schools were observed over three days, roughly divided as follows - Day one: classroom observations, Day two: interactions with the students and the community, and Day three: observing a pre planned teacher demonstration of an ideal class displaying the teacher potential.

A sample of twelve schools was identified for the second phase using a multi-stage sampling procedure. From the eight districts in the North East Karnataka region of Karnataka, Bellary, which had highest number of participating schools was selected. From this district three blocks were identified following the simple random sampling method. From each of these blocks two Lower Primary Schools and two Higher Primary Schools were selected in such a manner that one of the Lower Primary School or Higher Primary School had the highest number of teachers and the other had the lowest number of teachers.

This was followed by an in-depth study of a small sub sample of schools where intense interactions with the teachers was carried outside the classroom to elicit views on the teaching learning process, hurdles faced and the kind of improvements they would like to see in the schools. The School Development and Monitoring Committee and the parents were also interviewed.

The investigators were trained to observe teaching practices in classroom situations and to classify these practices on a four point rating scale. Care was taken to establish highest possible inter-observer agreement with master observers. The number of teaching sessions observed in each school varied. To arrive at a school score for comparison the observations were averaged and converted into percentage scores. Awareness level and involvement of members of SDMCs in the functioning of school was estimated on the basis of responses in a focused-group situation. Views of students on issues related to their studies were also probed following focused group discussion approach.

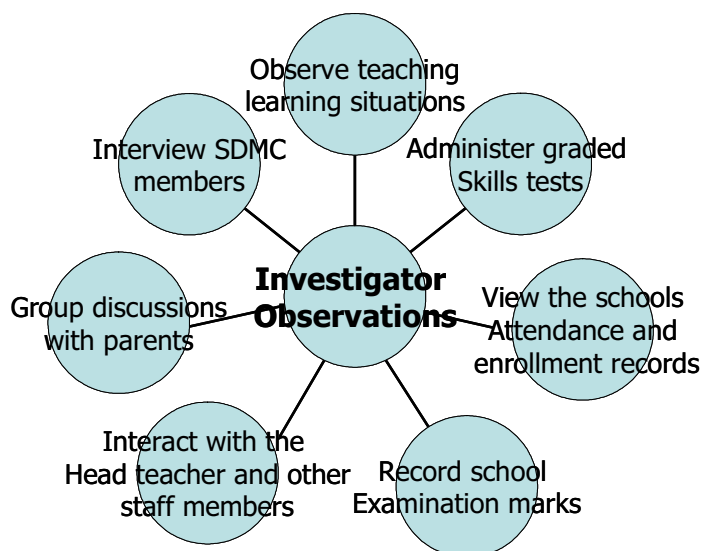
### Parameters Observed

The process of observation was as follows:

Each of the selected 12 LGP schools was visited by a team of NEEV investigators. The investigators-

- (a) observed the teacher and students' interactions in teaching learning situations in the classroom
- (b) administered specially designed tasks to estimate the comprehension of basic competencies and skills of students from grade I to grade IV in Kannada, Mathematics and General Awareness
- (c) grade-wise enrolment and attendance figures from school register
- (d) school examination marks obtained by students in their previous grade
- (e) interactions with parental groups to know their views on the village school, teachers and students' learning
- (f) interactions with members of the SDMC on their interest and involvement in school's functioning

Observations collected were classified to arrive at a meaningful comparison between a school getting the highest and the school getting the lowest rank on school examination marks as well as NEEV designed special tasks.



### Profile of a school with good practices

#### Teacher related characteristics

- Providing opportunities to students to learn by doing frequently.
- Appreciating activities performed by students.
- Providing opportunities to students for oral expression.
- Using the TLMs appropriate to the subject being taught.
- Checking of the tasks assigned to students during the learning process regularly.
- Joyful interactions with students during the learning process.
- Going near students to check the progress in the task assigned in the class.
- Attending to teaching as well as non-teaching tasks.
- Prompting students to get the correct answer from among the students.
- Talking of good habits in a loving manner.

### **Student related characteristics**

- Attentiveness in the class.
- Loving student-teacher relationship.
- Students' helping one another.
- Using the TLMs as and when feel like using them.

### **SDMC related characteristics**

- Holding monthly meetings regularly on school progress.
- More concern towards learning.
- Greater cooperation between school teachers and the SDMC.

### **Parents' attitude towards school**

- Highly favourable towards school functioning.
- Highly favourable towards teachers.
- Highly favourable towards learning of students.

## **2 FINDINGS**

### **2.1 Observations from 12 Schools**

The teacher behaviour and the student behaviour showed a mixed pattern. On 14 of the 24 observed characteristics among teachers, no differences were observed in the various schools. Only in the case of 10 characteristics some differences were noticeable. Similarly, in the case of student behaviour, differences could be noticed on four of the six characteristics. Among SDMC members and the parents body, some differences were observed.

From the results analysed so far, one may infer that a school with good practices is likely to show presence of some characteristics more than other schools. These are summarised below.

### **2.2 The In-Depth Study**

Three schools were selected for the in-depth study from among the twelve using a student's skill test developed by NEEV. This test had the following criteria:

1. Topper on the basis of internal final exam marks of grade III for students currently in grade IV. The markswere of those students who were part of the random choice for the skill test.
2. The school topping on the basis of NEEV skill test scores for grade IV.
3. Based on the grand total of the NEEV test skill. This total includes scores of the participating students of all the grades from I to IV of a school thereby giving an aggregate score.

In the three schools the teaching learning processes were observed at a macro level this time. At the micro level intense interactions were held with the head masters and all teachers of the three schools. Interviews were also conducted with the Education Department officials.

The only LGP winner out of the twelve case study schools turned out to be one of the three selected for the 'in-depth' study. The LGP winner is henceforth referred to as the 'High Achieving School' (**HAS**) and the remaining two as the 'Low Achieving School' (**LAS**). By examining the HAS and LAS an attempt was made to identify the factors responsible for the success of HAS. The key findings are summarised below.

**Teacher behaviour:** It is interesting to note that the HAS teachers follow the methods followed by the teachers in the LAS in most of the observed cases. On some aspects, however, there are small differences but in the negative direction. For example 'opportunities for oral expression' are not provided in HAS. Similarly the teaching methodology followed in the HAS does not involve the students to the desired levels to make it an interactive session and no TLM are used.

**Student behaviour:** Again like in the behavioural aspects of the teachers there were some issues on which the HAS differed from the LAS, and the difference was again in the negative direction. The students were never observed using any TLM and the relationship with the teacher appeared to be one of 'fear'. With regard to 'doing the work' the students in the HAS were always observed to be involved in their respective work, thereby indicating that this discipline may be a possible contributing factor towards higher achievements.

**SDMC and Parent Body:** There was no difference in any of the aspects regarding the opinions of these two community representative bodies, except in one critical issue regarding the usage of LGP reward, in the event of winning it. The HAS parent body believed in using the LGP reward towards infrastructure development.

**Student Response:** About 40% of the HAS students chose mathematics as their favourite subject, whereas it was only about 10% in the LAS. Interestingly, 30% of students in HAS indicated receiving help from their peers or siblings while that number was only 10% in the LAS. Among the HAS there were students who indicated that they were already learning English, whereas the LAS school students did not. Among the other factors there was not much of a difference between the HAS and the two LAS. Across the schools a majority of the students wanted to learn English. Most of the students said that they learn best when the teacher explains the subject with examples. Most of the students across the schools liked outdoor games. A bulk of the students were found to help their parents, more so in the HAS.

### **3 SUMMARY AND CONCLUSIONS**

#### **3.1 Summary of findings**

Based on all the findings and observations during the study, a mixed picture emerges. There are no clear patterns to the practices, behaviour characteristics or opinions among the high achieving and low achieving schools. No strong differences are noticed. Also, there is no strong aspect which seems to distinguish the LGP winning school from the other schools. In fact, on many parameters and characteristics some contradictions were observed. The summary below highlights this.

#### **Physical aspects**

Schools generally look colourful from the outside. A lot of construction activity was observed. Many schools had toilets constructed recently and in some the construction was in progress. Some schools, which had recently got a toilet, were yet to have water supply connection rendering the toilet useless. Further, most of the recently constructed toilets were under lock and key and out of bounds for children in order to keep them clean. Only five of the schools studied had a complete compound wall. Most of the schools have TLM painted colourfully on its walls and children were observed enjoying learning whenever these wall painted TLM were used for any activity. Sadly very few teachers made use of them regularly and even fewer effectively. The floor, walls and the roofs of most classrooms were in satisfactory condition but some classrooms were lacking in terms of light and fresh air. The concept of a 'playground' does not exist in all the schools. Further, many of the schools don't have a physical trainer. Hence the grounds are rarely used for organised sporting activities.

What emerges from this section is that schools are generally on a path of development with regard to the infrastructure and that the teachers are interested in these aspects. However there are no indicators that the scholastic achievements of a school are influenced by the availability of infrastructure. In fact, the LGP award winning school had the bare minimum a school requires yet its performance was good while the other schools which seemed to have the best of the facilities did not succeed in the programme.

#### **Enrolment and Attendance**

Whatever efforts the Government has made with regard to enrolment seem to have been effective. The highlight however is the attendance in the schools in relation to the enrolment. All schools have a good percentage of the enrolled children attending school. The parent community and the teachers feel very positive about the mid-day meal scheme. The teachers indicated that the mid-day meal scheme helped in ensuring enrolment and attendance. It must however be noted here that the 'good attendance' was based on the records rather than any physical verification.

#### **Teachers and Head Masters**

All the teachers observed had undergone in-service training of various kinds and durations. They commented that the 'trainings' have helped them the most in classroom management. However the 'silver lining' is that there are exceptions in almost every school with some teachers believing in themselves to make positive contributions even in the given situation. Most of the teachers with such positive self-belief are young and have joined service in the last decade and have a minimum qualification of +2 along with a teaching diploma. Majority of the teachers however used the 'cane' to 'discipline' the students or for their inability to answer a subject specific question correctly. Only about half the teachers indicated that they subscribe to the theory of 'spare the rod and ...', but in practice, very many more followed it.

### **School Development and Monitoring Committee**

No clear picture emerged regarding the effectiveness of the School Development and Monitoring Committee. Three of the twelve schools the School Development and Monitoring Committee were seen to be an effective body while the rest of the schools had committees that were neutral, 'obstructive' or disinterested.

### **Parental opinion**

Most of the parents 'seemed satisfied' with the performance of the teachers in their ward's school. Individual teachers were praised by parents indicating that the parent body was aware and appreciated the positive contributions made by teachers. However, a deeper analysis of the responses showed that the parents chose the 'good' option to most questions across all the schools. This is perhaps an indication that parents are not the best judges of the performance of their children, school and teachers.

### **Students**

The students in all the schools came across as a gregarious group of children. They were not shy to approach the researchers and strike a conversation. However, most students across the schools were hesitant to reply any question pertaining to academics. Students in the lower classes found it difficult to read from the text. However, they could speak and express their thoughts quite fluently. This aspect was confirmed in the NEEV test as also the lack of success in the LGP in the case of 11 of the 12 schools. Discipline among the students, especially in the lower primary schools is not a matter of concern. Students were however found to lack in concentration and were easily distracted.

Our observations indicate that 'sound pedagogical practices' have not necessarily resulted in performance in assessment suggesting no clear correlation. For example, 'good practices' were not evident to the extent desired in the LGP winning school while another school displayed a much wider range of 'good practices' but failed to win the LGP award.

### **3.2 Conclusions**

This research project could not arrive at any conclusive hypothesis on what indicated success for a school. The team felt that it was the interplay of a number of factors that made the winners (High Achieving Schools) stand apart from the others. In some cases it could be processes put in place by teachers and head-masters no longer working in the school or a very supportive young adult group in the community, which under the current scope of the study could not be explored fully.

As an area of further exploration, an exclusive study of the Highest Achieving Schools in this region may reveal a pattern of processes which indicate success, to which the present study could provide a context.

## 5. Annexure

- 1 Teacher's response to students' inquisitiveness:
  - a. Answering the question asked
  - b. Behaving as if the question is not heard
  - c. Asking students to keep quiet
  - d. Students did not ask any question
  
- 2 Encouraging students to learn by doing:
  - a. Providing such opportunities in a planned manner
  - b. Giving such opportunities frequently
  - c. Giving such opportunities sometimes only
  - d. No such situation observed
  
- 3 Teacher initiative to developing self-confidence in students:
  - a. Appreciating activities performed by students
  - b. Prompting students who generally remain quiet in class to talk
  - c. Giving importance to question asked by students
  - d. No such initiative
  
- 4 Nature of tasks assigned to students:
  - a. Assigning study related tasks according to students' interest areas.
  - b. Assigning the class the exercises given at the end of the lesson in the textbook
  - c. Asking students to study their respective books
  - d. Making students do odd jobs
  
- 5 Opportunities provided for oral expression:
  - a. Liberally
  - b. Normally
  - c. Rarely
  - d. No such opportunity
  
- 6 Ability-based assignments to student:
  - a. Assigning task to each student according to his/her ability
  - b. Ability-based grouping of students and assigning tasks accordingly.
  - c. Same level of task to every student
  - d. No assignments at all
  
- 7 Approach in asking questions:
  - a. No discretion towards anyone
  - b. Asking those students who generally do not respond to questions
  - c. Asking question to a selected few students
  - d. Asking questions to bright students only
  
- 8 Attitude towards girls:
  - a. Showing no discrimination toward girls
  - b. Seating them separately
  - c. Paying minimum attention to them
  - d. Giving no role to girls in various activities

- 9 Approach to nurture creativity:
- Giving special tasks to all students
  - Nurturing only a few students
  - Giving every student the same task
  - No such initiative
- 10 Use of previous knowledge of students in the teaching - learning process
- Often
  - Adequate
  - Rarely
  - Not at all
- 11 Application of recapitulation technique in teaching:
- Frequently
  - Sometime only
  - Not applied
  - Not related
- 12 Presentation of subject matter:
- Making it interactive
  - By giving relevant examples
  - Reading interestingly from the text book
  - No special efforts
- 13 Teaching technique adopted:
- Interactive and activity-based
  - Minimum student involvement
  - Only teacher talks
  - All to themselves
- 14 Appropriateness of teacher's language to facilitate student comprehension:
- Appropriate for students to comprehend easily
  - Somewhat difficult for students to comprehend
  - Difficult for students to understand
  - Totally different from the local language
- 15 Appropriateness of Teaching - Learning Materials used:
- Related to the subject being taught
  - Not related to the subject
  - No TLMs used
  - Not relevant
- 16 Use of environmental inputs in teaching:
- Adequately
  - Sometimes
  - Rarely
  - Never

- 17 Managing multi-grade teaching:
  - a. By teacher alone
  - b. With the help of bright students from the same class
  - c. With the help of senior students
  - d. No management
- 18 Assessment of subject matter taught:
  - a. At the end of every unit taught
  - b. Once in a month
  - c. Once in three months
  - d. Once a year
- 19 Checking of assigned tasks to students during the teaching process:
  - a. Checked regularly
  - b. Checked by asking students whether they have completed the assigned task
  - c. Checked when students on their own showed completed tasks to the teacher
  - d. No checking done
- 20 Major part of teacher-students interactions in class related to:
  - a. Joyful teaching-learning experience
  - b. Making students complete assigned tasks
  - c. Teacher talking all the time
  - d. Disciplining the students
- 21 When students are asked to do self-study / assigned any task in the class room:
  - a. Teacher goes near students to see their progress
  - b. Teacher keeps sitting on the chair
  - c. Teacher moves to another class
  - d. Teacher talks with other teachers
- 22 Use of school time by teacher
  - a. Teaching activities all the time
  - b. Fifty per cent time in teaching
  - c. Administrative work most of the time
  - d. Involved in personal work
- 23 While students answer the questions asked by the teacher, the teacher
  - a. Appreciates the correct answer
  - b. Attempts to get the correct answer from among the students
  - c. Corrects a wrong answer
  - d. Does not show any concern whether students are understanding or not
- 24 Teacher inputs related to student's character development during teaching
  - a. Talked about good habits in a loving manner
  - b. Talked about good habits in a harsh tone
  - c. Reprimanded students all the time
  - d. No such input provided

### **Student behaviour / observation check list**

- 25 Students' involvement in the teaching-learning process conducted by the teacher
  - a. Attentive throughout
  - b. Some time not attentive
  - c. Often found talking to one another
  - d. Quite a few dozing off
- 26 Students' inquisitiveness:
  - a. Students asked questions without prompts
  - b. Asked questions when the teacher prompted
  - c. Did not ask questions even after teacher's prompt
  - d. Kept silent
- 27 Student-teacher relationship
  - a. Loving
  - b. Formal / Neutral
  - c. Fearful
  - d. Indifferent
- 28 Student-student relationship during class hours
  - a. Helping one another
  - b. Helping friends only
  - c. Involved in their respective work
  - d. Complaining about one another
- 29 Availability of textbook with students:
  - a. Available with every student
  - b. Available with majority of students
  - c. Available with a few students only
  - d. Not available with any student
- 30 Use of TLMs by students:
  - a. As and when students feel like using them
  - b. Use with teacher permission
  - c. No use made of the TLM's
  - d. Not relevant