

# The Improvement of Primary School Quality in India: Successes and Failures of 'Operation Blackboard

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# **The Improvement of Primary School Quality in India: Successes and Failures of ‘Operation Blackboard’**

**Caroline Dyer**

## Abstract

This paper examines teachers' responses to the teaching-learning aid component of Operation Blackboard, a scheme to upgrade primary school facilities; and the implications for policy innovation aimed at improving the quality of primary schooling. Provision of teaching-learning aids posed a challenge to the long-established teacher-centred, textbook culture of schools which the National Policy on Education, 1986, sought to change. Adoption or rejection of this innovation emerge was conditioned by teachers' professional capacities, the nature of their pre-and in-service training, personal motivation, and the relationship with the communities among whom they work. On the basis of the case study, the paper argues that policy innovation can only be successful if teachers' capacities are accurately assessed, which may involve a reduction in policy aspirations and a slower, but more realistic, pace of change.

## **Introduction**

In recent years, increasing efforts at the policy level are being made to combat the ‘push-out’ effect of primary schools, which in 1986 contributed to a drop-out rate of 52.4% by the end of the 5-year lower primary stage (5 AIES 1989). Although children are successfully ‘pulled in’ or enrolled in schools, they are gradually pushed out again by a number of factors, many of which are directly school-related: an unattractive classroom environment, teacher absenteeism, teacher-centred teaching, low skill attainment, and a stagnant daily routine. The improvement of school facilities, under Operation Blackboard; the establishment of District Institutes of Education and Training; and Minimum Levels of Learning were all measures introduced in the National Policy on Education, 1986 (NPE 1986) to improve the quality of the school process.

If quality improvements are to happen, much depends on the ability of the system to resuscitate teacher interest, improve their motivation and commitment, and enhance their professional competence, for ‘the quality, competence and character of teachers’ (Education Commission 1970: 84) are the most significant factors influencing the quality of education. Also, since primary teacher salaries account for nearly 95% of State-level allocations to education (Varghese and Tilak 1991) - a proportion that, in the strained economic circumstances, has almost completely edged out expenditure on other items - cost-effectiveness and the return to this investment is a crucial issue for policymakers (Ahmed *et al* 1991; Avalos 1991).

The 1991 teacher training syllabus affirms that the ‘status and quality of teacher education of our country especially at the elementary level is far from satisfactory’ (NCERT 1991: 1). Much is being expected of teachers, while too little is known about their capacity to respond to change. This paper examines this issue in the context of how primary teachers in Gujarat reacted to Operation

Blackboard, under the NPE 1986, and draws out the implications for policy innovation and implementation on a national scale.

Data were collected by qualitative methods from teachers in thirty schools in three different socio-economic locations of Baroda District: the tribal taluka of Chhota Udepur; the rural taluka of Karjan; and within the urban centre of Baroda itself.

### **Operation Blackboard**

The NPE 1986 aimed for qualitative improvement in elementary education, the increased retention of children in schools, and a move towards a child-centred approach to education. The major policy plank to improve school quality was Operation Blackboard, a centrally sponsored scheme which laid down, for the first time, the minimum criteria of a primary school: two rooms, two teachers (one of them preferably female), and a set of 'minimum essential' teaching learning aids (TLA) (NPE 1986). The TLA included a science kit, maths kit, tool kit, 45 charts, maps, children's books, balls - and a blackboard. All existing schools were to be upgraded to this level, and no schools should in future be sanctioned unless they fulfilled the new criteria (MHRD 1987).

Teachers' receptivity to the TLA component of Operation Blackboard is important, since it signals whether broader attempts to improve the quality of the teaching-learning process are likely to be successful. For, behind the inclusion of TLA in the package of 'minimum essential' items for primary schools was the policy notion of more learner-oriented teaching, placing the individual child at the centre of classroom process. This notion ran counter to current practice in many schools, where teachers, steeped for years in the 'textbook culture' (Kumar 1990), and usually operating in a classroom bare of anything that would enhance teaching - including, in 40% of schools, even that most basic of aids, the blackboard (4 AIES 1978) - had become used to working in an environment that was highly uncondusive to their enterprise. Adoption of TLA, with all they implied, would be a very major step indeed for many teachers, a radical departure from what had become the institutionalised form of both teaching and learning.

The absence of TLA in schools hitherto can also be taken as an indicator of the low awareness by the administration of the process of schooling - the quality of the interaction between teacher and child. For instance, Gujarat State had a clear policy regarding the two other components of OB: since the early 1980s, it had pinpointed the need to eliminate single teacher schools, since they 'weaken the elementary education system. Such schools remain closed when the teacher is absent' (6FYPGuj 1978: 64). By 1986, a third of the State's primary schools were single teacher schools, 97% of them in rural areas (5AIESGuj 1988). The potential supply of teaching staff is ample: less so the budget at State level for financing their salaries, and hence the inability to fulfil the policy target.

For rooms too, Gujarat aspired to providing all teachers with their own room, but a similar gap between resources and policy is evident in the remaining target of 37006 rooms to be built as and when funds permitted (5AIESGuj 1988). Yet the State had no policy or funding schemes for the provision for teaching-learning aids, which have been supplied haphazardly by District/Municipal Board managements as and when their own funds have permitted.

Operation Blackboard, conceived on the base of statistical evidence of the shortage of facilities in schools (4 AIES 1978; 5 AIES 1989), did not seek teacher participation or consent on the nature or pace of change. Thus, while teachers had very little say in the provision of extra rooms or teachers, designed to alleviate classroom overcrowding and improve teacher-student ratios (standing at 1:63 in 1986 in Gujarat), their reactions to the new TLA, with their underlying policy message, would indicate their willingness and ability to adapt to the type of change policy-makers envisaged.

It emerges from the case study that teachers' readiness to respond to change is linked to their training and professional status, motivation and attitude to their work, relationship with the local community, and the quality of preparation offered by the administration.

### **Teacher training, quality and professional status**

#### **Pre-service training**

There is a positive correlation between length of training and quality of teachers (Avalos 1991; Lockheed and Verspoor 1991). By 1986 in Gujarat, only 2.5% of the teaching force in the State's Std. 1-4 schools remained unqualified (two thirds of that proportion being women); but the State has acknowledged its own 'weak' position with respect to the quality of teachers. Gujarat has always had elementary teachers with a low level of general education: older serving teachers may be non-matriculantes (with 7 years of schooling) who have taken a single-year Primary School Certificate.

The current two-year Primary Teacher Certificate (PTC) allows students to enrol at about the age of 16, on conclusion of their Secondary School Certificate (SSC): entrants to training college in Gujarat are two years younger than in most other States where the requirement is completion of higher secondary certificate. The State recognises that raising the age of entry to PTC is both desirable and feasible (personal communication, Joint Assistant Secretary, Education, Gujarat State, 1992), but has as yet taken no steps in that direction.

Although entry requirements have been raised, the low general knowledge base of entrants means that much time during teacher training is devoted to re-learning the contents of the primary syllabus; correspondingly little time is left over for introducing pedagogical practices. A low general knowledge base of primary teachers may impact negatively in various ways on their performance: they are less likely to invite questions since they are not sure they will know the

answers (Lockheed and Verspoor 1991) and not to know is not compatible with the image of the teacher (Kumar 1990); questions are a threat to completing the syllabus on time (Avalos 1991; Kumar 1990).

Most teachers interviewed felt their PTC training was not suitable for the situations in which they worked, since training colleges have a strong urban bias: this despite five sixths of teaching posts being in rural areas (GoG 1990a). Pedagogical practices in training colleges, according to teacher interviews, indicated little change since 1970, when a national study reported that colleges in Gujarat used none of the 'demonstration method, assignment and activity method, supervised reading and model reading techniques' (NCERT 1970) nor audio-visual aids used in other States to varying degrees.

Teachers felt that their trainers were not sufficiently aware of the realities of small schools with single rooms and no facilities, and hence did not offer strategies for working in such conditions. In the top-down system, where Gujarat implements the National Council of Educational Research and Training (NCERT) syllabus with minor local changes, this is a reflection of unrealistic national-level thinking, for in the NCERT's 1991 revised teacher training syllabus, multiple class teaching is still treated as an 'additional specialisation', defined as an 'area of interest' although a 1986 national survey had established that two thirds of all primary schools were single or two teacher schools, where multi-Standard teaching is inevitable.

Although the NPE 1986 intended that 'as the first step, the system of teacher education will be overhauled' (NPE 1986: 26), Gujarat's District Institutes of Education and Training did not come on line until the mid 1990s, long after the policy impetus for Operation Blackboard had worn off. The potential role of these key institutions in enhancing teacher quality is discussed at the end of this paper.

### In-service training

When Operation Blackboard was launched, Gujarat had only very limited facilities for in-service training, provided sporadically by the State Institute of Education. The quality of this Institute, set up in 1969, was weak at a time when it played a key role in orienting teachers to the changes expected of them (personal communication, Director of Primary Education, Gujarat State, 1992). Its capacity to perform as a nodal academic institution is doubtful, given that its academic staff comprises Readers who are exclusively ex-District Education Officers; thus although qualified to B.Ed. level, their recent practical experience is of secondary level administrative affairs rather than elementary teaching.

For most serving teachers, in the absence of institution-based in-service training or school cluster arrangements, visits by inspectors constitute the only form of support. This arrangement too is problematic: their role presently amounts to friendly policing of schools, rather than offering

academic guidance and support to teachers; in the current structure, there is no opportunity for any professional training for inspectors. Also, although the official ratio is one inspector per 50 teachers, the ratio in practice is nearer to 1:90 in some Districts (Panchmahal Plan of Action, 1994; Baroda Plan of Action 1995) which means that inspectors find it very difficult to cover their beats.

In-service support for teachers is therefore very limited: in effect, teachers do not have a proper channel through which to seek help with any academic problems they might face.

### **Professional status**

The character of the primary teaching force has changed considerably since the introduction of a fixed salary and government service status, which accompanied mass expansion of elementary schools since the 1950s. Links with the community have often been lost, as, instead of being a highly respected member of the village community, a teacher is posted to a village to work in return for a fixed salary (Kumar 1990).

Primary teaching in particular is no longer dominated by upper-caste Brahmins, and has become widely accessible to lower social strata. The current composition of Gujarat's elementary teaching force includes 12.9% from Scheduled Caste and 15.3% from Scheduled Tribe communities (5AIESGuj 1988); so nearly 30% of elementary teachers are drawn from what have been considered the 'weak' social sections (5AIESGuj 1988; GoG 1990a).

Until recently, the rapid growth of the primary school network meant that a teaching post was virtually guaranteed on completion of training. Low entry requirements for a lifetime of secure government service are powerful attractions amid high levels of unemployment and 'diploma disease' (Dore 1976). In recent years pay levels have been increased, but for many years low salaries contributed to making primary teaching an unattractive proposition, and to the low status of the profession (Education Commission 1970; Kumar 1990).

There is little opportunity to grow professionally: avenues for career advancement within elementary teaching are very limited. Teachers may work in larger (1-7 Std.) schools, or move to the inspectorate or teacher training, where there are few places. For those who do opt for teacher training, there is no obviously suitable qualification since the B.Ed., the next level of upgrading for an elementary teacher, is primarily a qualification for secondary teaching.

To combat the problem of teachers' unwillingness to serve in rural areas, Gujarat operates a bond system for new teachers entering their first post: they must complete three years' service there or forfeit Rs 10000, the equivalent of some 5 years' salary. There is a salary incentive of Rs. 40 per month for a tribal area. While the bond system allows the State to 'solve' its problem of recruitment to the unpopular rural areas, and helps curtail the political machinations associated with teacher transfers, it does mean that inexperienced 18 year-olds can be posted to a community with which they may hardly even have a language in common.

## Teacher motivation and attitudes to their work

Among some fifty teachers interviewed across the three case study sites, only three really wanted to teach: for the others, teacher training was a relatively inexpensive route to a settled and secure life. This situation is by no means untypical on a national scale (Kumar 1991). Many factors weighed in teachers' motivation and attitudes to work, but one of the most important was their level of satisfaction with the place of their posting.

### *Teachers in Karjan*

Karjan *taluka* is largely agricultural, and although it is considered by government officials to be relatively well developed, this development is uneven, with basic infrastructural facilities such as roads and pumps still lacking in the areas furthest away from Karjan town itself. The *taluka's* literacy rate corresponds exactly with the District average (then 44%).

One third of the teachers interviewed were of Scheduled Caste, and all the others from general social groups; there were no tribal teachers. Almost all were native to Karjan *taluka* and were settled there with their families. Most teachers were in their forties; only one was in his late twenties and one was 56. No teacher was in a first posting. Almost all teachers came from agricultural backgrounds: their mothers were usually illiterate or had completed up to four Standards, while fathers had entered, if not completed, upper primary. They usually had some land holding which varied from four to fifty acres, and provided a supplementary source of income.

Only one had wanted to be a teacher; another was forced by financial circumstances to take up teaching; and one other mentioned an interest in giving to others. All others had been attracted by the ready availability of this job; the need for a secure income; and the possibility of working in their native place.

Teachers living in or near the urban centre of Karjan reported regular discussions on various topics with teachers and others working in the urban centre. Other teachers, who lived and worked in more remote rural areas of the *taluka*, had less opportunity for such interaction. Interviews pointed towards a correlation between teachers who sought closer contact with 'modern' life in the town, or even Baroda city, and an ability to exploit more widely the potential of textbook and TLA, representing an urbanised model of education, than those who were closely involved only in the 'traditional' rural sector.

Teachers in Karjan brought a mixed range of attitudes to the job and communities in which they worked, but overall the feeling tended to be positive. Teachers mentioned that 'teacher interest is most important thing', or they could 'identify with how children feel', and the importance of creating 'a loving and child-friendly atmosphere'. More than one teacher expressed pleasure at the opportunity to give to others; there was generally a sense of respect for the job and an awareness of the responsibility attached to teaching young children.

Teachers did not show much concern about the poverty of the school conditions in which they worked, and which Operation Blackboard sought to address. Since, in general, their expectations of teaching had more to do with their personal security than vocational ambition, they were not ambitious for change: they were settled in their jobs, and concerned to discharge their duty, but tended to have other side occupations, such as farming, in which they were personally more actively interested.

#### *Teachers in Chhota Udepur*

Chhota Udepur is one of Baroda District's three tribal *talukas*, and forms part of the long tribal belt of Gujarat, bordering States lying to the east. Characteristically, the hilly and remote terrain of the tribal belt is difficult to develop, and despite extra financial inputs under Tribal Development Plans, the State struggles to provide basic facilities such as roads and pumps. The problems are exacerbated by the traditional hamlet settlement patterns, with relatively small populations requiring expensive facilities. The tribal population retains to an ever-decreasing extent its own identity, reflected in its characteristic dialect and strong musical traditions. Economic conditions are often poor, and many tribal people migrate in search of labour work in cities, to supplement the meagre income from a single crop during the year.

The profile of teachers in Chhota Udepur was significantly different from that of Karjan, although an agricultural background and low parental levels of literacy were common here also. About one third were ST, one third SC, and the remainder of general categories. Non-ST or SC teachers all came from homes where the father had entered if not completed Stds. 5-7, and mothers had completed Stds. 1-4. Among tribal teachers however only one father had completed Std. 4 and otherwise both parents were illiterate; so all but one of the tribal teachers were first generation learners (Chitnis 1978; Kulkarni 1978; 1984). Parental educational levels among SC teachers were higher: one had had a literate mother, and fathers had all attended, if not completed lower primary school.

There were two specific age bands of teachers: four teachers were in their late forties or early fifties; most of the younger teachers were aged around twenty. Seven teachers were serving in their first post and of those, only one was tribal and native to the area; others were non-tribal and mostly drawn from the neighbouring District. All tribal teachers had worked only in this tribal area although they had trained elsewhere. Teachers who were local all owned shared land which they worked with their family; one owned a small shop providing day-to-day necessities for the village. This gave them a sense of permanence: teachers from outside living in the same or a nearby village to the school had no such ties with their place of work.

As in Karjan, these teachers' reasons for becoming a teacher reflected the poor prospects of employment in rural areas. Only one had actively wanted to be a teacher, while others had taken the opportunity on advice, and because jobs were available. The inexpensive training and the security



of a job after only two years was mentioned by several teachers, especially in the face of poverty at home. But it was apparent that, while 'general category' teachers had entered teaching for economic reasons, there were other factors affecting tribal teachers' choice. Their comments point towards a lack of awareness about possible employment options; and the lower career aspirations noted by Chitnis (1978) - implicitly indicative of their low status in the wider social hierarchy.

In this area, most teachers, whether from the tribal areas themselves or from outside, perceived the local socio-economic environment to have negative consequences for student attendance and performance: 'parents don't take care of children, they don't send them to school even if they promise to'; 'parents are illiterate and not aware, and they don't feel the child should be educated, they are more interested in having the child work'; 'tribal people aren't ready for change'. Only one (tribal) teacher phrased the problem positively: 'literate parents would help contribute to fast progress in school'.

Despite their generally low morale it was apparent that teachers, with one exception, did not think they would be physically or financially better off in another field of employment, and had strong family motivations for remaining where they were. Teaching was in every case except one a pragmatic choice based on a perceived or actual lack of an alternative. Here also, the paucity of equipment and general conditions of their schools did not appear to have a negative impact on teachers, whose primary considerations were related to their personal security, in return for which they carried out their duty as a teacher.

#### *Teachers in Subhanpura, Baroda*

Subhanpura used to be a village outside Baroda, but has now become a lower-middle class suburb. In the vicinity are several, good quality, private schools where better-off parents send their children; thus the government school draws children of domestic staff, rickshaw drivers, and others who cannot afford the private schools.

In terms of physical infrastructure, urban schools are generally better off than the District Panchayat schools, with adequate rooms, blackboards and limited TLA, as was the case in Subhanpura. In contrast to the almost exclusively male staffing of rural schools, almost all the teachers here were female, from backgrounds where both parents had completed at minimum of Std. 7. and, without exception, of a higher caste than the children attending the school - there were no SC or ST teachers. Two had a B. Ed., a higher qualification than that required for their post, but preferred the short hours and 'easy' work of primary teaching. None was working in her first posting and all were married and middle-aged or above; none of them would consider sending their children to the school in which they worked.

Their comparatively better physical conditions notwithstanding, all had low motivation for their work, citing reasons such as the lack of facilities in the school and the weakness of the children

which, one teacher said 'inhibits my performance so I don't bother much'. Caste and class considerations played a major part in their outlook; and were exacerbated by the lack of any identifiable community with which to interact, and the seeming casualness of - often illiterate - parents who do not ensure their children attend school regularly.

These teachers were not concerned about professional commitments, but interested in personal convenience: the schools were easy to reach, the timings suited their family commitments, they enjoyed the interaction with the other women on the staff (during which conversation about students or teaching was non-existent), and so on.

### **Socio-economic environment as an adoption variable**

The socio-economic environment in which a school is located is a very important factor in shaping the attitude of the teacher and the quality of the educational process. Each different school has its own 'culture', which is likely to affect its capacity for absorption of an innovation. At one end of the scale, where the relevance of the urbanised model of education and the impact of the 'modern' world are low, the level of a school may be below the minimum required to absorb the innovation, especially if the innovation requires large, rather than incremental, change. Such were the circumstances in Chhota Udepur.

In Karjan, educational conditions had reached a level where schools did not have basic operating difficulties and teachers were better able to face the challenge an innovation would present. With their enterprise better understood, teachers had greater accountability to children and community, and increased motivation to attempt the difficult process of change.

In Subhanpura, teachers again had low expectations of the children, and low tolerance for their inferior caste and class ranking: there was no sense of common purpose and accountability to children was as low as in the tribal area: the prognosis for adoption of an innovation was correspondingly lower than in Karjan.

### **Teacher preparation: the Mass Orientation Programmes**

The trends in teacher quality illustrated above are not uncommon all over India, and the extreme youth of teachers is an additional worry in Gujarat. How teachers of this calibre can be encouraged and trained to respond to innovation presents a particular challenge to those who wish to initiate educational change. Yet OB was formulated with very little attention to how the gap between teachers' current practice and the desired behaviour was to be narrowed: despite the centrality of the teacher in this programme and in realising the policy objective of enhanced educational quality, it included no teacher training component.

Attempts were made to plug this lacuna through the Programme for Mass Orientation of School Teachers (PMOST), a series of 10-day camps with 50 teachers at each, using modular basic

orientation material. A basic problem was that teachers had to be oriented to a scheme which in the first two years of PMOST existed as hardly more than a policy suggestion: in Gujarat for example TLA kits did not begin to arrive in schools until 1988, the programme working its way through the administrative machinery, unseen by teachers, until then. There was a significant time lag during which 'awareness was created but on implementation there was no significant progress' (Dorasami 1989: 117).

A separate, specific Operation Blackboard orientation programme in PMOST format was set up in 1989, to improve teachers' abilities to use the TLA supplied under Operation Blackboard. In Gujarat, the State Institute of Education, charged with ensuring full facilities were provided at all training centres, had failed to ensure TLA kits were available. As a result training was held without the full Operation Blackboard kit in some places.

Teachers in Karjan, covered by Operation Blackboard in Gujarat's first sub-phase in 1988, did not participate in PMOST-OB, but received a three-day training at District level, from State Institute of Education staff and the inspectorate. This was intended as a practical orientation for teachers, to introduce them to kit items and how to use them. This training did not cover the underlying policy message of a change in teaching approach, and with that, the reasons why new TLA had been provided. Some of the teachers interviewed had already had the 10-day PMOST, some had not, a haphazard situation that is explained by centrally set numerical targets which had to be filled but not exceeded; but others had had no training at all.

Teachers in Chhota Udepur, covered in 1989, had mostly had PMOST-OB training but in general had found that it difficult to follow. Its content did not seem relevant to their problems and often they could not remember how to manipulate the items. Only two of all the teachers in this group had understood why it was necessary to adopt a change in teaching approach, and how the TLA could assist in helping children to learn more quickly, and with greater interest. Since the 'trained' teachers had not understood the training well, they had not passed it on to the second teacher, as the PMOST format had intended.

In Subanhapura, one teacher had received general PMOST training, but had not passed it on to other teachers as she could not see its relevance to their situations. For these teachers, there was a vast time gap between the policy orientation and the arrival of the TLA, since the kit did not arrive in the urban schools until at least three years after the policy orientation programme.

Dorasami (1989: 65, 79), evaluating PMOST in Karnataka, found that it 'did not help teachers develop a clear perception of the salient features of the policy' and that it 'made no impact on curriculum transaction in terms of utilising varied techniques in teaching'. Other available studies, such as those by Ramadass (1990) in Pondicherry and Acharaya (1990) in Gujarat, support these findings.

## **Teaching Learning Aids: adoption and rejection**

Incremental rather than rapid change has been identified as a positive variable in connection with teacher adoption of an innovation (*cf.* Adams and Chen 1981; Havelock and Huberman 1977). To be adopted by teachers, Operation Blackboard would need to build on some degree of teacher acceptance of a need for TLA.

Prior to the scheme, some teachers had perceived a need for at least some type of simple TLA in the core subject areas and had tackled the lack of any teaching material by providing their own: sticks or stones for counting in both the rural and tribal area; and also home-made charts and other limited aids in the rural area only. In the urban location, nothing at all had been provided by teachers. For some teachers, therefore, Operation Blackboard was an incremental change, while for others, it was a much bigger step.

### **Use of TLA**

Although administrators had adopted purchasing procedures, which left something to be desired in the quality of teaching aids (Dyer 1993), the TLA in tribal and rural locations were, in general, usable. Teachers' responses to the introduction of TLA varied very widely.

Almost all teachers used Operation Blackboard charts and leaders' photos to decorate the walls of the school. The abacus was usually to be found on top of the cupboard used for storing registers, while other TLA were in boxes neatly piled on top of each other and kept at one side of the room.

Teachers in the tribal area used virtually no TLA except the charts. The tool box was, justifiably, condemned as useless - of such low quality as to be unusable, in a badly deforested area. But most teachers ignored most of the other aids: when questioned more closely, it was apparent from what they said that some teachers had not even looked into the boxes to find out what they were.

Rates of usage were on average higher in Karjan, the rural area. Again, charts were universally adopted. The second most popular item was the abacus because 'students themselves can count' and the coloured plastic shapes because 'children can learn shapes and colours by playing'. But teachers had differing opinions about when aids should be used. Teachers who had not understood the policy message of a change in teaching methods felt that items were more useful in upper Standards only, as children should concentrate on learning reading, writing and numbers in their first two years. This seemed for them to preclude the use of TLA, for which children were 'too young'. Other teachers felt that using TLA had benefits which embraced both teacher and child by making teaching and learning more interesting and thus more effective.

Some teachers spoke of the monotony of teaching prior to Operation Blackboard, and the difference they saw in the children's interest after introducing a visual element. Two rationales given by teachers were: 'children are bright and if you give them material they will grasp fast.

Operation Blackboard can really broaden the range of activities'; and 'it takes less time to teach, it is practical and gives students life skills, things they can do at home. It used to be boring, now it isn't, the playway approach is possible and it's interesting. The economic problems haven't gone away but the intellectual problem is solved through playway teaching'.

In the urban environment, implemented in 1991, the Municipal Corporation failed to deliver any charts and the Operation Blackboard items were of very poor quality. But teachers anyway consigned the kit to the cupboard without even opening it.

In designing Operation Blackboard, the Centre had required State governments to amend existing accounting procedures which hold teachers personally liable for repairing any damage to articles logged into their Dead Stock register. This wish was not complied with in Gujarat, but very few teachers seemed concerned about their Dead Stock register and potential damage to items. If a teacher was inclined to use TLA, s/he would do so regardless of breakage potential: 'if it breaks, it breaks, children need these things'. Those who did not adopt more TLA than charts were motivated by factors other than fear of financial penalty.

Charts were universally popular, except in the urban school where they had not been supplied. Easy to use, they quickly found a regular place in school activities: it was obvious to teachers how and where they could be used, since they fitted in with the textbooks. Indeed, it may be argued that the chart is little more than the extension of a textbook page and the adoption of this particular aid therefore follows naturally in a textbook culture.

Most of the remaining TLA were more complex and required some explanation and training as to how and why they should be used. Their 'training' left most teachers dissatisfied. Those who had attended PMOST had understood the stress on a changed role for the teacher; and that the object of Operation Blackboard was child-centred learning. In practice they had established that it is 'easy for a child to understand if there is a visual image'. Although teachers found their training had been carried out quite well it had been, for more engaged teachers, unsatisfactory because it was 'difficult to grasp fully within 10 days, and the lack of revision afterwards makes it easy to forget'.

Tribal area teachers who had attended PMOST-OB all felt that ten days was insufficient to learn the mechanics of using the items and how to relate materials to the child and teaching. The training did not appear to tackle the problems they faced in their daily work, which made the message of PMOST-OB seem irrelevant to them; but it unintentionally provided teachers with an opportunity for general discussions. These had focused not on Operation Blackboard or child-centredness, but on their difficulties with the local environment and the syllabus.

These teachers are concerned that, because of language and attendance problems, they have great difficulties in completing the textbook (and *de facto* syllabus) in time. They generally meet with limited success in their teaching of tribal children, which they explain in terms of the backwardness

of the local community, the language problems and the lack of parental support for children. They dealt with these problems by adopting an attitude of 'they can't help it and neither can we' - a carefully balanced equation by which they adjust to their circumstances. PMOST-OB presented numerous challenges to this precarious balance: tribal area teachers were not receptive to Operation Blackboard because it was not felt to address what they perceived to be their most pressing school-related problems.

In the camps, teacher trainers tried to persist with the unsuitable PMOST-OB material, since they did not feel they had the autonomy to adapt it to local circumstances. They held it to be their duty to impart training according to a prescribed format, the question of relevance being left to those who write the curriculum: 'The environment of the teacher is the biggest problem but we can't do anything about it because it is an administrative problem. The syllabus is designed to teach them and not to solve administrative problems' (personal communication, teacher trainer, Chhota Udepur, 1991).

In all areas, teachers who did not participate in an organised programme were at a disadvantage since peer teaching had largely not taken place: this could not be easily rectified since negligence on the part of the State Institute of Education meant that the Operation Blackboard kit itself did not include an instruction manual.

### **The relationship between teachers attitude and adoption of TLA**

In Chhota Udepur, teachers tended towards a negative perception of the children they teach and the communities in which they work. Whether tribal or not, teachers are largely isolated from the local community, from whom there is usually little understanding of their enterprise. One teacher summarised a feeling apparently shared among outsiders serving in this environment: 'If the language isn't the same and the people are different, how can the teacher be expected to be there?'

Tribal area teachers hardly looked beyond the problems they themselves perceived to think about how a child might find school, and in general did not connect the quality of the school process with problems of drop-out or non-attendance. They saw a connection between learning difficulties and local environment, notably irregularity and that 'students who want to work are hindered by the language problem'; but focused on how it affected themselves rather than its impact on the child's experience of school. Among these teachers, teaching was just a job: the lack of identity with the local community and apparent hopelessness of their task provided no motivation.

In Karjan, most teachers identified to some extent with the children they taught and were sympathetic to their problems. In general they were aware that using TLA would be beneficial to both themselves and the children, and had sufficient motivation to make some effort.

Even so, the potential for increasing retention of children in school by enhancing the quality of the teaching process was explicitly realised only by one teacher, who said 'Operation Blackboard

things make the school attractive, which is useful for children who don't like school. They can look at the things to gain interest and this helps to make teaching more practical; and it helps in creating a classroom atmosphere of love' - the latter he felt to be the most significant contribution a teacher could make to retaining a recently enrolled child.

Otherwise, some teachers noted that retention had picked up when Operation Blackboard was implemented; and they felt that children were more attracted to attend school since Operation Blackboard, and the chance of working with different objects in the classroom.

Urban teachers were all of a different caste and socio-economic background from the children who attended their school. All teachers mentioned that the children are low-caste and backward, with uncaring parents. They held these factors, about which they can do nothing, to be responsible for students' poor school performance, and for their own low motivation to teach.

### **Teachers' understanding of the TLA and the policy message**

At policy level, Operation Blackboard was intended to improve teachers' working conditions, and to enable them to transact the curriculum more easily through a more visual style of teaching. Among teachers who did not really understand the policy intentions, the attempt in this direction was seen as an extra and not as a solution to any of teachers' difficulties: 'most of the time we have so much work for language and maths that we don't get time to use the Operation Blackboard kit'.

Introduction of TLA was not successful in amending many teachers' belief that the only function of a school in the first two years is to teach a child how to read and write, using traditional rote and blackboard methods. Only one teacher felt that he had really changed his teaching methods as a result of the policy initiative.

### **The implications of Operation Blackboard for policy implementation**

The centralised, top-down approach to educational innovation implicitly assumes that the elementary teaching force is a homogenous body; and that the same centrally-devised package of equipment will be suitable for all teachers and all schools in rural areas. The inherent concept of a school is a well-ordered environment in which teachers would like to make teaching interesting for children, set in a 'modern' world where there is a place for books, where people read and write.

But the reality of many schools in Gujarat, a relatively advanced State, is that children attend irregularly and do not sit still; and teachers are not concerned about whether their teaching is interesting, or even whether children learn, but how to complete the textbook on time.

The pedagogical problems of the teachers in Gujarat's rural schools are not primarily related to infrastructure, but to the absence of skills to cope with either teaching several classes simultaneously, or the needs of first generation learners, compounded by heavy and often irrelevant

curriculum. The type of pre-service training they receive does not equip them with adequate classroom management strategies, or the confidence to adapt the curriculum, and is an important factor in low teacher motivation.

Despite their limitations, PMOST and PMOST-OB had raised teacher interest; but for less motivated or able teachers, this was not sustained by the system once they returned to their schools. For tribal teachers in particular, the gap between what was projected in the training modules and the known 'reality' of schools was too wide to be bridged. Those who devised these modules pitched the level of their content too high for many teachers, who in consequence derived little gain from them.

As a national policy innovation, Operation Blackboard lacked any element of motivating and supporting teachers. This reflects the centralised, bureaucratic administration of education, which maintains a large establishment but fails to attend to those central to its effective functioning (Dyer 1994). Everything that teachers have to do is laid down by a higher authority, which does not consult teachers on any issues however teachers might be affected, and makes no concessions to local circumstances. The lack of any consultation with teachers about the contents of the OB kit, and the failure even to inform them that the kits were going to arrive before they landed on their doorsteps, are cases in point.

Although the TLA were designed to help teachers, it appeared to many of them that they would add to their workload. Most teachers had not become sufficiently clear about either the theoretical or the practical reality of the change expected to make any adjustment to the way they teach.

The majority of teachers interviewed showed no critical awareness of the relationship between their pedagogical practices, conditions in schools, and teaching problems. Some teachers understood teaching as imparting the content of the textbook, regardless of whether children learn. In some schools, where children who had attended for four years could still neither read nor write, teachers did not accept responsibility for this situation and blamed the local environment: they did not feel that their own pedagogical practices required attention.

In just a small handful of schools, teachers and children seemed to be working together with some sense of common purpose. Such teachers were able to make use of more of the items provided and to vary their applications: they saw relevance for TLA at all ages and not just after children have learned to read and write by using traditional methods. As a result there was the least gap between the policy world and the 'reality' of school life. These schools are nearest to operating in the conditions where Operation Blackboard could make the difference policy-makers expected.

But in these more favourable conditions, the composition of Operation Blackboard was such that it did not allow teachers to move far from a teacher-centred style of teaching towards the child-centred approach recommended in the policy. The TLA kit contained only a single set of items, so



only the teacher can use them and not give them to children individually. Although aids were used, they were embedded in a flow of teacher talk, and there was no evidence of any move towards children asking questions, experimenting or manipulating objects without very close teacher supervision.

Adoption of an innovation is also conditioned by teachers' perceptions of policy. Ups and downs of government allow policy to be seen only as a political programme, rather than as a blueprint for the direction of change: 'Whatever government comes, we're concerned with education: if they change policy we'll work on, it has nothing to do with government'. Many teachers felt they were fighting a battle with a government that formulates policies that bear little relation to their situation:

The government doesn't know what our needs are. The government makes policy for a city environment and in the villages the scene is very different. These city-oriented policies just aren't suitable for the village environment [personal communication, teacher C. Bhagvansinh, Karjan 1992]

## **Conclusions**

Teachers in this case study did not, in general, exercise any critical insight into the relationship between their teaching methods and the children's ability to learn: they are not reflexive practitioners. It is clear that many teachers do not view teaching and learning as a process: rather, teaching is a matter of imparting a set body of knowledge that students should learn to repeat without error. Some teachers do not feel responsible for what happens in the classroom: many of them are in the profession because it offers a secure income with short hours, it is available to those with low qualifications, and it allows a side business or family commitments to be facilitated.

However, despite generally low levels of professional competence, many teachers are concerned to discharge their duties adequately, and are prepared to make efforts to improve their work, providing that both the reasons and the ways to do so are clear.

At present, there is little incentive for them to improve their performance. Teachers are little more than powerless subordinates in a bureaucratic hierarchy (Kumar 1990), conveniently available to be called on to discharge any government work that needs to be done at the village level. This robs them of the chance of developing any professional identity, and is a major barrier to improving the quality of the schooling process. The system 'dehumanises' teachers, and it must be prepared to amend this to allow the focus on human interactions in the classroom to emerge. Until this is changed, and autonomy is returned to teachers, there can be no expectation of an improvement in the quality of classroom process. The case study also illustrates that teachers need to be motivated to build good relations with the village or community in which they work, since this will provide one of their major sources of support.

Given these characteristics of the teaching force, the prognosis for any innovation which requires a change in teaching practice is not hopeful unless it contains a large element of motivation and

support for teachers. Cosmetic ‘training’ such as the PMOST programme does not answer their needs since the level it aims at is, in general, above that which teachers can respond to. Teachers often reported that they had forgotten much of what they ‘learned’, indicating that a brief once-off programme has little meaning for them; it is therefore also a waste of financial resources.

The case-study indicated that teachers are willing to use TLA when they understand how it will make teaching and learning easier - for instance the visual aids, which were a near universal success. Charts also worked because they represented an incremental change, since teachers are used to handling text with pictures in the format of a textbook: transition to a chart was straightforward.

At the national policy level, when conceiving any innovation, the capacity of teachers to respond to the proposed change should be realistically assessed, in terms both of teachers’ professional competence and educational levels of the communities in locations where they are likely to be posted. It must be faced that in many places, levels of both are low: both policy aspirations and teacher training inputs need to be adjusted accordingly.

Building on the issues which PMOST has introduced, in-service training via the District Institutes of Education and Training should now seek to consolidate teachers’ understanding of the theory of child-centred, activity-based teaching behind the policy innovation, and the practical uses of the TLA which are now available in most Std. 1-4 schools. Such training will be most effective if it is a continuous process with repeated, clear inputs aimed at a level that is within reach of the trainee. It may take a number of such inputs to bring trainees up to the level of the overall policy input, but anything less is a compromise that will be evident in practice.

Induction into the special educational needs of non-mainstream communities and ways in which these can be met must also form part of District-level training; this should also comprise education on the particular problems facing first-generation learners in village and urban contexts, and how teachers can most effectively support them.

If teachers are to be motivated, and policy is to be brought into closer correspondence with their capacities and expectations, they need to be involved in decision-making about matters that affect them, not totally excluded as is customary. At present, teachers do not relate to policy as something designed for them; they see it as a political whim, and they are thus disposed, in general, to ignore it. Facilitating such dialogues, and thus bringing administrators, policy-makers and teachers into correspondence with each other, can become a regular activity of District Institutes of Education and Training, providing they seek to adopt a more holistic view of the whole process of education than the Primary Teacher Colleges they replace.

It should be added, though, that the administration also needs to look to its own procedures to ensure that it too is doing everything within its capabilities to support teachers in what is, without

doubt, a difficult job. Special emphasis needs to be given to the role of the inspectorate, so that teachers feel that someone both notices and cares about what they do, in contrast to the neglect they suffer at present.

Thus, through an informed consideration of primary teachers' abilities and capacity to respond to the type of change proposed, and the circumstances in which change is to take place, policy-makers would be better able to set an appropriate pace and means in the search to fulfil the objective of universalising primary education. In this way, rather than vastly overestimating teachers' capacities and thus presenting them with ambitious change that they have little chance of being able to achieve, a fit between policy aspirations and practical realities can be achieved.

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