

Understanding Educational Innovation in India: The Case of Eklavya Interviews with Staff and Teachers

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In the middle of 2002, the country's longest-running school-level educational innovation, the Hoshangabad Science Teaching Programme (HSTP), was abruptly terminated by the Madhya Pradesh government. From its initial base of 16 schools in 1972, HSTP had expanded to cover 1,000 schools and over 2,000 teachers in 15 districts of the state. It served not only as a catalyst for Eklavya's other curricular initiatives in middle-school social science (the Social Science Teaching Programme [SSTP]) and primary education (Prathmik Shiksha Karyakram, Prashika), but was also instrumental in sparking off several innovative efforts in various other states. The unanimous opinion of scientists and science educators is that HSTP embodied all that good science teaching should entail, namely, an enquiry-based discovery approach in which children conduct experiments and arrive at their own hypotheses, which they then further verify. The government's unilateral decision resulted in the simultaneous closure of SSTP as well. This programme has been lauded as a landmark effort to make social studies more interesting through its focus on causality rather than facts, as well as for its sensitivity in making abstract concepts intelligible by linking them to the child's local realities. Prashika developed an integrated curriculum with an emphasis on critical thinking, problem solving and creativity, and was one of the first programmes to be invited by the state government to contribute to its curricular reform efforts in 1995. However after just one phase the reform effort, the government opted for uniformity in its curricula and, in 2002, closed down Prashika as well as its own trial programme.

The collaboration between Eklavya and the Government of Madhya Pradesh is unique in Indian education because of the state's willingness to support the innovation even for the length of

time that it did, as well as due to the fact that in the past few years the state has made very public efforts to draw upon this innovation to change its own pedagogic practices, particularly in primary education. Then what accounts for the state's sudden and arbitrary closure of these programmes? Why was an adverse District Planning Committee (DPC) decision in one district (see Reports, this issue) used as an indicator of 'popular sentiment' against HSTP in the entire state? What are the changing pressures that the state currently feels within which its long-standing relationship with Eklavya was reduced to a 'landlord-tenant' metaphor?

The irony is that this closure comes at a time when the participation of civil-social organisations in school reform is unprecedented. However, a more nuanced reading of the spaces that are being made increasingly available for collaboration, whether in teacher training or curricular reform, reveals that these organisations are allowed only an isolated and often limited interventionist role. Eklavya's model of working with the state was unique in its ability to influence all aspects of school reform without creating parallel structures to continue and sustain its efforts. Is its closure a reflection of an increasingly conservative move towards 'uniformity' in curriculum while making use of discourses on educational equity, or was Eklavya's focus on school reform too narrow in that it failed to involve the larger community adequately?

The closure of Eklavya programmes, while controversial, was not the guiding rationale for these interviews, though each interview does use this as the starting point to generate a conversation. The interviews¹ were conceptualised as a reflective space in which Eklavya staff and teachers could discuss their experiences of working with each other and the state, and provide some insights into how their efforts epitomised the changing nature of educational innovation in the country. Issues central to any discussion of school reform including evaluation, teacher involvement, the continuous nature of innovation, the disjunction between policy and practice, the changing nature of the relationship between the state and civil-social institutions are brought up in the staff interview. The teachers, all from government schools, discuss how the programme has affected their classroom practices and their self-constructions as teachers, and compare these innovative curricular materials and pedagogic techniques to their BED training. These issues are discussed with a thoroughness that is respectful of lived experiences with the recognition that these are emblematic of larger shifts which, while difficult to elaborate upon, require to be mapped.

Eklavya Staff Interview June 2003

Sarada: *Why do you think that the Eklavya programmes were closed down?*

Kamal:² The basic thing about such innovative programmes is that they work at the fault-line between national policy directives, the national curriculum framework and the actual practices of the mainstream. They exert pressure on the mainstream by highlighting its contradictions and shortcomings. Although for two decades the state and its agencies seemed confident about dealing with these contradictions, this confidence seems to have eroded drastically over the past five years. Models like HSTP suggest that it is possible for the mainstream to function in alternative ways. But once this happens the counter-process begins to take over.

Anjali:³ Kamal's point is substantiated by the fact that in the last 10 years, the state had committed itself to establishing a body like the Technical Resource Support Group (TRSG),⁴ to negotiate the plurality of different initiatives like the alternative schooling model, Eklavya's Prashika initiative, and Seekhna Sikhana, the state's own trial package.⁵ Since academic reform and plurality formed a major agenda at that time for either substantial or external reasons like the DPEP, it facilitated sharing between state bodies and Eklavya. But this process was sustained only for about three years. We have often seen that as soon as progressive changes begin to have substantial impact on the macro system, the issue becomes politicised and in the face of the conservative backlash it engenders, the state is forced to make such innovations defunct.

However, the closure of Eklavya's primary education programme needs to be looked at differently from that of HSTP, though it reflects many of the points of tension between state and civil society that became crystallised and more evident in the case of HSTP. The objective of all Eklavya programmes is their infusion into the macro system. It was with this infusion in mind that Eklavya had collaborated with the state government in developing the Seekhna Sikhana package. However, the process had some inherent contradictions⁷ which, the government suddenly decided, would be resolved by the local community, i.e., the block panchayats. The government's stand was that if, in spite of the new state-wide books that had been introduced, the local community found the Eklavya package

more useful, it could recommend its use and the state would go along with the recommendation. While the state's stand is laudable, it failed to provide the panchayats with any policy framework, nor did it give them enough information or time, within which they could examine the issue. The decision was taken through the usual brief and urgent political process. This failure has significant implications, not only for future collaborations between the government and organisations like Eklavya, but also in terms of policy. The present Education Act, which is very vociferous on the involvement of local communities in the management of schools, is totally silent on the processes that should define academic or curricular reform.⁸

Rashmi:⁹ We may do well to consider the processes by which the state tries to implement its policies, particularly the contradictions it faces. For example, the local panchayat was penalised for a case of Sati, when the act itself very likely had 'popular support'. This means that there is a commitment to upholding certain principles, regardless of opposition. The question is not one of the existence of a policy or of 'popular support' per se. The state makes choices, and in the recent past we have constantly heard that there is not much political support for the processes of curriculum reform. The state clearly feels that it can serve the educational agenda better by opening more schools, increasing teacher training, and so on. It is very difficult to counter this mindset. By raising this agenda, all Eklavya is saying is that as citizens, we expect the state to perform its role of fulfilling the objectives of various educational policies that have been made by the consent of the people. It is this expectation that lies at the heart of the state's differences with Eklavya, an expectation that it dismisses as an illegitimate demand being raised by a group that wants to create a niche for its own programmes. By doing this the state has reduced its relationship with Eklavya into what the state itself has described as one between a 'tenant and landlord' — a truly shocking reduction.

Arvind:¹⁰ When you ask why the programmes have been closed, one of the immediate reasons that come to mind is the DPC¹¹ and its local-level politics. Secondly, as Rashmi pointed out, this was combined with the bureaucracy's view of Eklavya as a tenant, as occupying space illegitimately. This was apparent not only in its documents but also in its negotiations. When people believe that space, which rightfully belongs to the state,

is being wrongfully retained by a third party, then a great deal of noise is going to be made about it. This takes the act of closure to a different moral plane. If we distance ourselves from the immediate actors and see the episode as part of what is being faced by other social movements as well, we cannot fail to notice the common elements — breakdown of dialogue, blatantly strong-arm tactics, and disregard for processes. This disregard clearly shows up in the fact that the state itself set up forums like the State Advisory Board of Education (SABE),¹² which it never utilised. The space that allows for civil society organisations to negotiate, act and constantly be in a relationship with the state is being squeezed.

Ghanshyam:¹³ When we began this programme the government had no conception of educational reform. It is only when Eklavya and other organisations like it launched their programmes that the government realised that there was work to be done in this area. But it has still not understood that educational reforms need a longer time than provided by three- or five-year projects. Since it did not see the changes it hoped would have come about, the government closed down Eklavya's programme. The second factor is that Eklavya, for whom educational reform is the all-important goal, refused to compromise on the solution. For the government education means merely providing schools and a process for the evaluation of school teaching. But for Eklavya education is a holistic affair. This may have led the government to feel that Eklavya was exceeding its mandate.

Kamal: The most striking aspect of the closure is the fact that the decision was taken for reasons that the government later tried to justify on grounds that keep shifting over time. This sort of mindset has implications not only for Eklavya, but also for other programmes across the country. Eklavya was asked to give a proposal for improving science education at the state level. In our concept paper we asked the state to constitute a committee that could examine the basic issues involved, and based on that evolve an action programme. This was in October 2002. We have been told that our recommendation is not relevant. The state is thus unwilling to undertake a process that would involve a large number of people. This indicates a very different mindset from the one that, 30 years ago, permitted something like HSTP to evolve, and 10 years later allowed it to grow into a macro programme that eventually covered over a thousand schools.

Anjali: There are two very disturbing trends that I think require some discussion in a larger forum. One is that there is no legitimacy awarded to civil society initiatives that are outside of either the state or other elected bodies like the panchayats. Local or people's initiatives can enjoy legitimacy only if channelled through the panchayats or elected representatives. While the Constitution guarantees us the right to express ourselves through associations, this right is constantly undermined. The timeframe set by the state for innovations — the point that Ghanshyam raised — is also very short. The concept of continuous innovation, with one phase of innovation giving rise to another, has not really been accepted by mainstream macro systems.

Sarada: *We've already begun discussing some of the issues outlined in this next question, but to be more specific: can you tell us about Eklavya's experience of collaborating with the state and the difference of opinion that the state and Eklavya seem to have on the nature and duration of innovations?*

Rashmi: There are two ways in which a group like Eklavya, which is interested in academic innovations and curriculum development, can achieve its goals. One is to set up its own chain of schools and the other is to work through the macro or state system. We rejected the first option because we felt that if worked through our own schools, we would have a certain amount of control over the situation as a whole, which would make its significance for the larger system questionable. Eklavya envisaged a slightly larger frame for what it wanted to contribute and I think the administrators and policy-makers who supported the formation of Eklavya in 1982 probably appreciated our choice. We felt that systems in ordinary government schools could be toned up with supplements and additions that would then remain in place. The support system required to enable government schools to provide a different kind of education was not something we could demonstrate by just creating materials or methods in our own schools. For that Eklavya would have to explore ground realities and see what developed from there.

Secondly, education is an area that generates a variety of opinions among teachers, parents and intellectuals. It is a domain of public interaction, of sharing ideas, of building support, of gaining confidence. In this context, it is worth exploring whether 30 years ago people in Hoshangabad understood the contours of a child-centred science education curriculum. Though this is something that we have not yet

evaluated, I think it lies at the heart of Eklavya's effort, which was to bring about continuous and incremental improvement in our overall confidence, understanding and ability in handling and actually running and sustaining educational innovations. Surprisingly and unfortunately, we somehow failed to communicate this. Maybe it was too big a leap, maybe it was something not easy to communicate. But then the question is, 'not easy to communicate' to whom? One must never forget or undervalue the real, basic demand that the people of Hoshangabad raised. It was twofold: one, why, if it was so good, was the state not implementing HSTP in the entire area; and two, could private schools with poor infrastructure facilities and badly trained staff implement this programme? These questions have not yet been answered by the state.

Kamal: At each stage of the programme, both in written documents and during negotiations for setting up bodies or committees, it was continuously emphasised that after its expansion to cover the entire state, the programme would become a state one, with Eklavya serving mainly as an academic research support group. It is this understanding that is now being denied. In this context, we really need to understand the psychology of the state in suddenly denying its own documented history.

However, the programme did manage to establish a number of things. We proved that it is possible, within existing state structures, to create bodies and raise the requisite human resources to run programmes like HSTP on a macro scale. In 1972, when we began, NCERT took the position that activity-based teaching or experiments in our schools would not be possible because, as a developing nation, we could not afford to have science laboratories in every school. But in the very first 10 years HSTP established that it is possible to do experiments even in ordinary rural schools by using very simple and inexpensive kits.¹⁴ Further, it established that teachers can be very effectively involved in developing and improving teaching-learning materials, including textbooks. But this would mean allowing the teachers to modify textbooks locally, say at a district level. The question is whether the mainstream can accept this principle of plurality.

As far as learning from Eklavya's experience of collaborating with the state is concerned, a very significant aspect of the intervention was our practice of involving people from institutions of higher learning. I think the uniqueness of this lies in the type of spaces that Eklavya could create through this interface with people from universities and colleges, who would

come and contribute to the development of our programmes. This is something that is not yet seen as a natural process by other programmes.¹⁵

Arvind: A distinguishing feature of our collaboration was that we had in place an administrative structure which, when it worked, was amazingly well knit with the state government structures. It included, for example, ensuring that the Sangam Kendras¹⁶ worked, that the mechanisms the state had taken up had our backing, that teachers who we had trained were not transferred, etc. I don't think we were always successful. The functionality and/or dysfunctionality of schools over a period of time has an effect on any innovative program and this was a great challenge to us.

Anjali: While, as Kamal pointed out, on paper our programme has always been a government programme, the feeling at different levels of the bureaucracy responsible for implementing it has always been that it is Eklavya's programme. There is, therefore, a need to reflect on this difference between what is on paper and what people actually feel. The government has shown a similar attitude towards other initiatives as well. For example, the Nali Kali experiment in Karnataka was initiated by someone within the system. This person, who was part of a group of teachers, was isolated from the mainstream as if the programme was her individual initiative.

About the issue of whether we need to have our own schools: if the objective is to reform the mainstream, then after developing a model in a few schools, the seeding process needs to be spread across the state to create a critical mass in each district/block. HSTP did take this route when it seeded the programme in 15 districts — but it did not spread at the pace envisaged. There are also other, less obvious, factors. For instance, the linkages between different stages (primary–middle–secondary), the need to reform pedagogy across the curriculum, and the need to institute change across the system at a critical minimum pace. Eklavya was able to effect changes in certain sections of the system, but not complete the whole logical chain. This created a certain reverse pressure over time, which perhaps caused something to snap. This kind of thing has also happened with other innovations that have been undertaken within the system, particularly at the primary level (Lok Jumbish, DPEP). They too have been reversed due to similar pressures.

There also needs to be a plurality of initiatives and an organisation needs to provide space for this. Eklavya provides the space for trying out different approaches. There is no one magic wand to solve all problems. Whether it comes from Eklavya or the state government or some other institution, no one initiative can address all issues.

Sarada: *Given that within the Eklavya model, government teachers were integral to pedagogic as well as systemic reform, what is your experience of working with these teachers?*

Kamal: One thing that has moved us tremendously is the oppressive conditions under which teachers work. On the one hand we see teachers as the main conduit for delivering everything in the school system. Yet the system seems to treat them with great disdain and utter insensitivity. The curriculum is very rigid and allows no freedom to experiment with any new methods and the examination system allows no autonomy. Even training is looked upon as *a set model* in which a set procedure has to be implemented. Teachers are not regarded as creative individuals with whom ideas can be shared and to which they can contribute. Thus, any attempt to bring about change in school education will have to address these issues. First and foremost, we need to provide a platform where teachers can enjoy equal status with the subject expert or the administrator; where they can raise their voice and say confidently what they feel. Establishing such platforms and processes, whether for setting examination papers, revising textbooks or curricula, or devising training programmes, is crucial. Secondly, there must be a conscious effort to build processes that enable peer interaction among teachers. The isolation — both intellectual and professional — of teachers in rural as well as urban areas is so deep that to expect them to keep on at their job day in and day out and to do it creatively is an impossible demand. Activities such as monthly meetings to meet each other and sometimes also resource people, and fortnightly bulletins help to break their isolation.

Rashmi: I want to try and share some experiences on whether teachers have been able to use the knowledge learned from Eklavya trainings and textbooks in the teaching of other subjects. The first time we posed this question to a group of 15 social science teachers, I was quite frankly expecting a negative answer. I was stunned when teacher after teacher spontaneously reported that they are indeed influenced by Eklavya trainings in their teaching of other subjects. They said

that while teaching English or Sanskrit, instead of ignoring the pictures contained in the textbooks, they make it point to discuss them. They ask children about their experiences relating to the topic being taught a lot more than they used to earlier. They engage children in a dialogue in order to gauge how much they have really understood. They also encourage children to read the texts on their own and find the answers for themselves. They no longer expect children to learn things by heart; it is more important for them to understand what they are learning.

Anjali: In the context of social science, we worked with a very small sample and in almost all the schools the teachers were fairly involved. But in the context of Prashika at the block level, when we worked with about 300 teachers, it often struck me that our various training sessions seemed to address only the most enthusiastic teachers. We were not really able to give enough attention to designing training sessions for the medium kind of teachers, and particularly for those who were resisting the programme. Prashika was a very radical programme in terms of the materials as well as methodology.¹⁷ The teachers therefore required much more support, which perhaps we were unable to give.

The involvement of teachers in curriculum and material development was an integral part of not just Prashika but also the Seekhna Sikhana package. Our level of engagement with primary schoolteachers as curriculum developers and teacher trainers enthused even bodies like DIET and SCERT. It is sad that the new textbooks clearly show that the involvement of teachers has reduced and that the process has again become centralised.

Arvind: I feel that working with teachers is really the soul of Eklavya programmes. Even socially, much of our interaction was with the teachers, both as a part of the school and as a part of the larger community. Whenever we wanted to carry out some scheme, it was the teachers that we relied upon as collaborators and guides. Some of them were really good, efficient and insightful. The way they organised some of the training programmes was phenomenal. The capacity of some of them to appreciate the larger picture was even greater than ours. Not that they were not critical. But at least there was a process of dialogue. In that sense, our interaction with the teachers was a strong motivating force. The programme's closure has therefore affected us very deeply.

Ghanshyam: There are some issues in which the government is perhaps unable to intervene. However, Eklavya has tried to deal with them. Take, for instance, untouchability. This is perhaps something that people do not think about today, but when Eklavya was starting out, it was very much an issue. So were certain gender issues. I feel that Eklavya had a good strategy for dealing with these problems, due to which teachers became confident enough to question why certain practices went unchallenged. Their proactive stand shattered the notion that teachers were a powerless lot and could not bring about any change. A lot of teachers who were at the end of their careers could still go on and do something about issues that mattered to them. So could the younger teachers. Thus, while government records show that teachers are frequently absent or do not take the school timings seriously, Eklavya records show that many teachers not only kept regular hours, but also worked overtime. If we were successful with teachers, it was because we raised questions close to their hearts.

Kamal: I want to summarise three aspects of our experience with teachers: one is that the teachers became our window to the community, not only as teachers but also as persons who were part of the community. Secondly, the responses of the teachers differed significantly: there were those who were very strongly committed and emotionally involved with us, but there were also those who were hostile. At times, this difference provided us with the impetus to dialogue with the dissenters and grapple with the issues that they brought up. But it is also important to point out that the forces that wanted to attack Eklavya's efforts politically often used the dissenters. The third aspect relates to the teachers' response when the government cracked down on the Eklavya programme. It is interesting that the state felt worried enough to use strong-arm tactics to suppress these teachers. We have often been asked that since we had been working with these teachers for so long, why did they not speak out when the programme was being closed? We can recall a lot of individual teachers expressing anger against the closure, but it certainly wasn't a collective protest. There are two reasons for this. One is that since they are a part of the system, teachers are a very insecure lot. Any of them can be singled out and victimised by the administrative or political system. The other is the fact that in all these years we have not been able to get the teachers to organise into a professional group that can be mobilised to express a strong opinion on an issue.

Arvind: We are always being asked why the teachers did not come forward to support Eklavya when its programmes were being closed down. We must remember that teachers work in a very large bureaucracy, of which they occupy the bottom most rung. They have the sharpest sense of which way the wind is blowing. Even so, about 50 to 100 teachers said that they were ready to come if a separate meeting with the Chief Minister were to be organised. I have known of instances where, during local flare-ups, teachers told the troublemakers that they could close down the programme, but could not stop them teaching the way they wanted. And this was many years before the programme was actually closed down.

Rashmi: The fact that many teachers who were still in service came out to protest with the children was something I was quite anxious about. But they dispelled our anxiety by asking that if they did not come out in defence of what they believe is right, then what was their role as teachers in a democracy? I was quite stunned by the courage that some of them displayed by coming there to protest against a government decision of this kind.

Sarada: *Since 'evaluation' is the stick that is often used in times of crisis, what has Eklavya's experience been with evaluation?*

Anjali: I do not think the questions that the state or the public ask Eklavya are invalid. After all, if one is introducing an innovation, people have a right to know how it is affecting the problem. Since Prashika has gone through two external evaluations, I'd like to say something about them. The programme was last evaluated by the Ravi Mathai Centre. It started out as a very participatory process, but as it unfolded various pressures, particularly of time, meant that certain constraints set in. The state and its officials ask questions about the impact of a programme and think that in three months time someone will do something and answer those questions. In this case, the state was evaluating its own programme. In such circumstances, there is generally a pressure to present the results in a certain manner, particularly where student evaluations are concerned. To give credit where it is due, the people from the Ravi Mathai Centre were fairly transparent and shared all their data with us. We knew about their samples and their tools. We found they had failed to take into account the very great socio-economic and educational differences between the districts which was influencing their conclusions. But when we pointed this out to them, they corrected their oversight and presented the results district-wise

in the final report. The government said that its policy was informed by this report. However, we are not sure on which aspects of the report the subsequent government policy of having one textbook for the entire state was based.

But more important is the question, how do you analyse what difference a changed curriculum has made to the children? Then there is the absurd situation where the evaluation costs more than the programme being evaluated. This question came up when the Ravi Mathai Centre was doing its evaluation. The state said that it could not afford for the Centre to hire its own investigators, so they had to make do with whoever was available, like cluster coordinators, irrespective of the fact that they were themselves part of the programmes being evaluated. There was thus bound to be some bias in the evaluation. We therefore need proper academic bodies that can negotiate such issues. We also need to set up national standards for evaluation, as well as for the processes involved.

Ghanshyam: There has been a lot of dialogue on how evaluations should be done, but very little consensus. For instance, Eklavya felt that there should be both written and oral evaluations. Children answer questions in the way they've been taught. But the evaluators want the answers to follow a fixed format. If the children do not answer according to this format, they're not marked for their answer. What we believe is important here is not the exactitude of the language but the confidence with which students are able to express themselves, and whether there is some kind of logic to what they say. The evaluation also did not allow for the fact that the mother tongue of most of these students is not Hindi.

Kamal: Eklavya's programmes have been some of the most evaluated programmes. Apart from HSTP's own in-built feedback mechanism and other internal studies, the programme also attracted a number of PhD theses, evaluations by official committees and the MP government's own assessment report to justify its decision to close down the programme. An appraisal of all these efforts reveals four major issues with regard to evaluation. First, it is important to be clear about the objective of the evaluation. We were often confused about whether studies were examining HSTP's approach to science teaching or analysing the programmes implementation. Second, the design of the evaluation must be able to produce a logically consistent result, i.e., the interpretation of facts cannot be haphazard. Third, evaluation projects seldom have time and money for a rigorous exercise, a vulnerability that is

reflected in several studies. Fourth, given the constraints of evaluation projects, they cannot be used to draw very conclusive inferences about the success or failure of a programme. The tendency to peg official decisions on such unsure grounds does more harm than good.¹⁸

By this I do not mean that we should dismiss evaluations as being useless. On the contrary, we need a lot of professional inputs from universities and research institutions. But evaluators also need to be aware of the limitations of the evaluative process, particularly if it is to decide the fate of a programme. Then soundness of design, and objectivity of tools and sampling, all become very important. Another disturbing factor is that evaluation studies are not being seen as a means of further improving our understanding of the educational process, either at the systemic level as or at the level of the learner. I am worried that at the national level there is a trend to commission evaluation studies that are done quickly, mainly to demonstrate success. In the long run this is going to do much damage and impact on the credibility of evaluation studies.

Rashmi: I will very briefly present the experience of evaluation that the social science programme had when, in 1991–92, the Government of Madhya Pradesh decided on paper to withdraw the textbooks and close the programme. It was after this decision that they instituted an evaluation committee, which was asked to submit its results in 15 days — quite obviously an impossible task. Eklavya had no knowledge of when or how the evaluation was done. Though discourses on ‘participatory evaluation’ are widely prevalent today, this was not true of the period in which this evaluation was undertaken. By the time the evaluation was done the government had changed and the new government tried to skirt the first evaluation in order to come up with another one that improved on that of the previous government. We had offered all possible cooperation to both governments, but all our efforts failed. Eventually, we decided to do our own evaluation. We set up a resource group of people from Delhi University, NIEPA and other reputed institutions. We informed the government and asked it to send a representative to participate in the process in the hope that if the evaluation were done with seriousness and with well-known academics, the government would also take the report seriously. However, we got no response to our invitation. Our evaluation team debated many questions, including whether the evaluation should be a comparative or a self-referenced one. It was agreed that evaluations are worthwhile if done for the growth of the programmes concerned, and therefore the

evaluation should be designed keeping in mind the programme’s objectives. The team requested us to submit a detailed document of how Eklavya’s social science programme and its various objectives and processes were formed and evolved over time. Fifteen subject experts were given our textbooks, which they read chapter by chapter and viewed them against the objectives that we had set for ourselves. They also viewed our textbooks against the parallel NCERT textbooks. The third dimension of the evaluation was Eklavya’s own narration of views from the field. We wanted our evaluators to interact with the teachers and students in the field. This did happen, but not sufficiently. So we took on a research associate who recorded verbatim accounts of curriculum transactions and made these available to the reviewers. Since the evaluation was carried out as an autonomous academic exercise, it allowed us to focus on the substance of education much more clearly than in the case of evaluations that are done under various political, economic or administrative constraints. When we gave the report to the government we were told that our data was entirely subjective and that the government would institute its own process of evaluation. We have not heard about any evaluation since then, yet the programme has been closed down.

Sarada: *What do you believe is Eklavya’s contribution to the landscape of education innovation in India and, given the closure, what is Eklavya’s future framework for action?*

Kamal: The question of Eklavya’s contribution to educational innovation in India is linked to the contributions of a much larger group whose efforts, which were initiated in 1972 in Hoshangabad district, led to the formation of Eklavya. This larger Eklavya family has definitely had an impact on discourses around educational change over the last 30 years. One, it established that an effective intervention is possible. Two, over time, we managed to chalk out a style of intervention that was different from the one with which the state agencies were familiar. There are at least two or three very striking aspects about this style. The first is that it is not about interventions in a piecemeal manner. We do not only aim to only change textbooks or train teachers. Such interventions, successful as they may be, cannot be effective in the long run. The issue of change in the educational system has to be addressed in a much more holistic and integrated fashion. Everything that impacts what a teacher does in the classroom has to be taken into account and all resources that can help in

changing this have to be brought into play. The third aspect has been to prove that looking for shortcuts and quick-fire solutions is not the way out. The problems are much deeper. There are too many inter-linkages and one has to interact with them intensively and on a long-term basis.

About the new ways in which Eklavya intends to pursue its agenda: I think after a lot of debate, we have achieved clarity at two levels. One, that in spite of this experience, our commitment to engage with the state is as strong as before. We believe that the state and its agencies have a crucial role to play in the way education is planned and functions and hence it is necessary to engage with them either through free-level critique or through building up alternatives and posing them in the public domain. Two, there is an increasing tendency to depend on the state for providing the wherewithal and the impetus for any change. This needs to be checked. We are now trying to provide programmes in the field with teachers, with schools, with community groups and with parents. Building up a culture of alternatives and interventions that do not rely on the state to go forward is what we should seriously try and evolve in order to bring about counter-pressure on the state.

Rashmi: Much of the language that Kamal has just used is also the language that the MP government has used for the last one year, namely, of decentralisation. In Eklavya's experience, there is a shade to this decentralisation that still has a very strong element of central control. The power that is exercised by the collectors and ministers is such that it is they who are effectively in control of the situation. Secondly, the non-official control that higher-ups in a political party exercise over the functionaries, is something that we have seen very clearly in the way that HSTP was closed down. On the issue of developing a countervailing force to the state, this can be done through doing things outside, without or against state patronage or support. But the question is: do we leave the character of the state untouched? What is the legitimate role of the state in social processes? In this context, we would certainly want to create a state that stands by certain policies and mediates in all affairs at every level.

Arvind: I think our engagement with the state is presently taking two specific forms. In response to an invitation from the state government in October 2002, we submitted a concept paper on how Eklavya can contribute to improving education at the state level. Unfortunately, the reaction to this has not been very positive. The state asked us to submit a nuts and bolts

programme of action that would provide a baseline for how the programme would be conducted, how evaluation and training would be built into it, and list Eklavya's capacities to carry this out. We are not sure whether this is a diversionary tactic or whether the state really intends to implement what it proposes. Given the way the programme was shut down, we are still suspicious of the government's intention. Secondly, at the level of building up initiatives at the grassroots level, our long experience of working in the field tells us that all our discussions and critiquing are of no use until they lead to some concrete solution. And we need to make sure that this process is built into each one of our programmes.

Anjali: I think the major contribution of Eklavya, along with other progressive forces in education, has been to take the discourse on educational issues to a higher level and spread it across the country. Eklavya has played a major role in this through the programmes it has developed and instituted, and the various interventions it has made in both national and state policy. Currently, we are focusing on increasing our advocacy role in policy interventions. For example the whole issue of quality education depends very crucially on the quality of the teacher. While DPEP discourses discuss the role of the teacher at every level, the state simultaneously undermines teacher quality at the recruitment and professional development level. So the challenge for Eklavya is how to design long-term career development courses which give space to the individual needs of teachers. The other aspect of the challenge is to take this to scale. How does one change public discourse? Who should be involved? What should be their role? Policy is a proactive effort as well as a response to public opinion. How does the public demand become one where it says that good education is that which makes the child inquisitive and involved? We have to not only work out strategies to resolve these issues, but also persuade the state to engage with them.

Teachers Interview April 2003

Sarada: *Why do you think the Eklavya programmes were closed down?*

Teacher A: We were quite excited when we read the newspaper report about the Chief Minister's declaration that 'we will prescribe the same textbooks and the same syllabus for all of MP'. We thought that by saying that same syllabus will apply everywhere, the government was going to expand HSTP. So when all of a sudden we got the news that HSTP was being closed down, we felt really discouraged. The process of learning science through doing experiments that HSTP encouraged was very interesting and children learnt well with this method. The Hoshangabad District Planning Committee (DPC) has put forth two reasons for the closure. They have said that children find it difficult to do HSTP science because they have to go in search of flowers and leaves, and that the experiments on electricity are dangerous for the children. I find both these reasons quite baseless. Firstly, if the physics experiments were life-threatening, could we have continued doing them for so many years? And secondly, if they think that it is difficult for children to go out and collect things from nature, then I believe that they have no experience in going out with children on excursions or even picnics. If they did, they would know that children enjoy being close to nature. When we go on excursions with our students, we combine fun with learning. This keeps children engrossed and they have never caused any problems.

Teacher B: I think the government just took an ad hoc decision to close down HSTP. If they had consulted the teachers they would have known that this system of teaching science through observation and experimentation really develops scientific thinking amongst children. The textbooks that have recently replaced HSTP textbooks include answers to the problems they raise, and do not inspire the child to work freely and develop a scientific mindset. In India science is usually taught in a traditional manner. Often there are no laboratories; experiments are explained theoretically and children are marked on their ability to recollect them. HSTP, on the other hand, encouraged students to do their own experiments.

Teacher C: We often hear that one reason for closing HSTP down was that the guardians felt that their children were not learning very much and that their knowledge of science was

weak. I really want to know how many guardians thought so. I have been teaching for over 15 years. Till today I have not seen guardians becoming worried about how much and what the child is studying, whether in science or in any other subject. While a few may be interested, most are not able to follow what the child learns in school. What is important is how much the teacher can help the child retain. In contrast, HSTP places more emphasis on understanding. So if the guardians were opposed to HSTP, it was probably because they differed with its view on the function of education rather than its content. Eklavya had organised several science quizzes and exhibitions to which both children and their guardians were invited. Those who attended seemed convinced by Eklavya's style of teaching and there was no sign of any opposition.

It has also been said that students have opposed HSTP. This again depends on how they were asked what. If you want their independent and honest opinion, they will give it to you. If you pressure them to say that something is bad, they might agree. Then if someone else pressures them to say that the same thing is good, they would agree to that too.

Teacher D: Although HSTP was a government programme, the state always considered it an Eklavya programme and did not give it much attention. The government's lack of interest in science can be seen from the secondary schools that have opened, where even after five years there are neither trained science teachers nor any science kits. The government also stopped inspections and trained science teachers were posted to primary schools where they were of no use.

Sarada: *What are some of the similarities and differences between the Eklavya teacher training programmes and the BEd training that you received?*

Teacher A: The BEd training places greater emphasis on the age of the child and the method used to teach that age group. In contrast, as teachers in HSTP, we are expected to first develop our own scientific knowledge through experiments, observations and discussions. Secondly, HSTP places more emphasis on group work. Another significant difference concerns the way in which learning is approached. For instance, if the topic being studied related to birds, HSTP would make available to us reference materials that would cover all the basic information on birds. However, if we wanted additional information, such as why birds chirp or how they fly, then HSTP would call in specialists to clear our doubts. These

specialists would take us out on early morning walks and tell us about the different kinds of birds and their habitats. Eklavya's training programmes were based on the belief that if we were going to do experiments with students, then we should first do all of them ourselves and clear our own difficulties. Whatever capacities we aimed to develop in the children should be first developed within us. The BEd training places more emphasis on the pedagogical aspect, while the HSTP training, which was more intense, touched equally upon theoretical and pedagogic aspects.

Teacher D: BEd training is limited to prescribed textbooks. Most of it is done through lectures, using pictures to illustrate. Whatever knowledge is imparted during the training is presented as the truth. No questioning is encouraged. Compared to this, the emphasis of HSTP's training was to develop the teacher's understanding of the subject with the help of experiments and observation. The trainers, who were of excellent quality, not only made intensive preparations for the training, but were also very open to feedback. They were quite happy to rectify the mistakes, if any, that they may have made during the training, and even make changes in the textbooks if necessary. Moreover, there was no hierarchy between the subject expert, the trainer and the teacher.

Recently, after the closure of the HSTP programme, I participated in the DIET (District Institute of Education and Training) training at Pachmarhi, which was held to teach us how to use the state's science textbooks. First, we were all given a pre-test in which, apparently, we all failed. Next, we received a teacher's portfolio, which contained a lot of errors. Then we were given several days of 'training' on chapters in chemistry, biology and physics for Classes VI, VII and VIII. No experiments, no observations. We just had to listen to the lecturers and take down notes. No questions were allowed. After five days, we had to take a post-training test. Examiners overlooked the fact that everyone was copying and we were all marked as being hundred per cent successfully trained.

Teacher C: HSTP training brought about several behavioural changes in the teachers who participated in it. First of all, they began to actually like teaching; second, they developed a serious interest in the subject they would be teaching; and third, they became very active in the classroom. The biggest change, however, was that they learned to listen to their students. Instead of imposing their own views on the students, they learned to accept the students' point of view.

Sarada: *How would you describe your role in the classroom while teaching Eklavya textbooks?*

Teacher B: Our role while teaching the Eklavya books was like that of a colleague or helper. For instance, if a group were working on a given experiment, we would sit with them and assist them.

Eklavya books are very easy to read and the experiments they contain are detailed in a step-by-step manner that is easily grasped by the students. Therefore, all we had to do was to make sure that all the materials required were available. Students themselves would usually check the kit to ensure that the required chemicals and other materials were in good order and sufficient quantity. They would then work in the group to which they were assigned. Our job was just to show them the path. We used to speak only when there was some kind of problem.

Teacher C: Children are usually scared to talk to the teacher, but while we were teaching the Eklavya texts, children regarded us more like friends. In the Eklavya philosophy, questioning and talking are not considered sins. Whenever there was a discussion or a lesson or experiment was being summarised, we would facilitate their thinking by examining what worked and what went wrong, with all children in class eagerly pitching in.

Teacher D: I tried to impart the joy of learning science to every child. I also developed in them the capacity to substitute materials from one's own environment; for example, to use petals of a china rose as litmus paper.

Teacher A: I was not really involved in revising. But I have always felt that textbooks could contain fewer experiments so that we have adequate time to complete all of them. Children should be made to understand basic theories based on a few experiments and also on reading the text. There was always a difference of opinion on this issue between HSTP resource people, other teachers and myself. The social science textbooks related much more to children's lives, taking in more from the teachers who lived amongst the children. For example, it was felt that it was necessary to touch upon basic concepts like banking so that if the child's guardian wanted to open an account, the child would know which form to fill and how. In history, the chapter on pre-historic man was taught in the form of a story and the illustrations were such that the children could understand them quite easily, and answer questions on their own and in their own words.

Teacher C: We would often ask students what they thought of a particular chapter and get feedback from them. We would also ask them how they felt about doing the various experiments and what they were learning from them. Sometimes, it was evident to us that an experiment that should take 10–15 minutes to complete was taking four to five days. So when we attended the refresher training programme, we told the HSTP trainers about this and suitable revisions were made to the text. In the social studies textbooks, the greatest innovation was that questions were asked throughout the chapter. This helped us to assess on an ongoing basis how much the child was learning. This procedure helped children to not only remember but also express their views about what they had learned. Every lesson contained one or two questions that asked the child: ‘What would you do in this situation?’ This provoked the children into using their imagination and helped them to strengthen their bases of understanding.

Teacher D: I helped in the writing of experiments, changing the vocabulary to reflect local usage of words, and including new experiments. In addition, I also helped in the writing of educational articles for both children and teachers that were published in Eklavya’s various magazines.

Teacher B: Eklavya always relied on the teachers for revision of textbooks. This happened both formally and informally during monthly meetings, classroom observation, and the testing of materials developed. All opinions were considered seriously. Before adding or deleting anything, teachers, scientists and educators were asked for their opinion. In social studies, we asked to give continuous feedback on lessons, detailing the difficulties we experienced while teaching. We would let them know if certain questions were not okay, or point out the type of questions that were too difficult for children to handle and recommend their exclusion. For example, in the context of maps, we informed them that it was difficult for children to understand issues of scale; when the textbook was revised, a matchstick equivalent was devised so that children could grasp this concept better. In this sense we all participated in the revision of textbooks.

Sarada: *Given that HSTP and the social science programme has been closed down and you are now required to teach the state textbook, do you still find the training given by Eklavya of any use?*

Teacher A: We continue to use the process of teaching science that we learned through Eklavya. We will continue to encourage the students to ask questions, keep them in touch with their natural environment, and do as many experiments as we can.

Teacher C: HSTP needs to be understood not as a way to teach a particular subject text but more as a means to teach and understand science in general. It also needs to be understood as a means to develop closer relationships with children. HSTP helped to foster in us the idea that the child should be the focus of all teaching activity. We were taught to give children a chance to tackle and understand every subject on their own, but to be available to help them whenever needed.

Teacher B: I still try and use the HSTP culture of teaching science to teach the current science textbooks. I think students really gain by this, since they continue to perform experiments using the HSTP science kit.

Sarada: *In the current scenario, what role do you envision for Eklavya in the future?*

Teacher C: So far, Eklavya has only paid attention to science, social science and primary education. But now, since they will have some more space and time, they should think about developing alternate textbooks and teaching materials in English, Hindi, Sanskrit and Mathematics for the middle school. They can provide great service to the field of education by improving textbooks in other subject areas.

Teacher A: Eklavya should now focus its efforts on developing scientific thinking amongst the larger populace. For example, they could work with farmers on ways to improve their harvest, or they could work on health issues and alternate medicine. When the success of these endeavors becomes evident, these same people will ask for the HSTP programme to be brought back into the schools.

Teacher B: Eklavya should continue to provide the materials required to teach science. In addition, it should work on improving the basic skills of children in mathematics. It should continue its work with children, because it is only by changing the children that we can change the future. It should also increase its efforts to work with guardians to promote awareness about this kind of learning.

Notes

- ¹These interviews were tape recorded and transcribed; in the case of teachers interviews which were in Hindi, they were translated. Due to concerns of length edited versions of both interviews are presented here. The five members of Eklavya's staff who participated are introduced through endnotes. The identities of the four teachers have been kept confidential.
- ²Kamal Mahendroo joined HSTP as a student volunteer in 1973, joined Kishore Bharati in 1975 and later joined Eklavya when it was formed, primarily working in HSTP.
- ³Anjali Noronha joined Eklavya at the time of its inception and has worked on the civics section of the social science programme, and on Prashika which she has also been coordinating since 1994. The Prashika group was actively involved in collaborating with the state government to develop the Seekhna Sikhana package (see note 5 below).
- ⁴The TRSG was an expert body formed by the MP state government, with both state and national level independent experts as members. This group met on a quarterly basis to discuss trial experiences and new materials being developed in primary education.
- ⁵For its primary education curriculum reform work, the state government invited a number of organisations with field experience in primary education, from both within and outside MP to try out their curricular packages in field areas and use their experiences to formulate the state's own curricular package, namely, 'Seekhna Sikhana'. Eventually, Eklavya was the only non-government organisation that continued to participate; Digantar, Jaipur gave academic resource support to the government's Alternate Schooling Programme. For the first time in history, the SCERT too instituted a field-based trial programme. Later the experiences of Alternate Schooling as well as those of Shikshak Samakhya were incorporated into Seekhna Sikhana. This package included: (a) a set of curricular objectives; (b) teaching-learning packages, both text book and non-textbook; (c) a teacher training and ongoing teacher support system; (d) reform of the evaluation system, and (e) administrative reforms to support curricular reform.
- ⁷This contradiction was regarding the following issue: When the best from a particular experimental package has been incorporated into the system, what should be the fate of the experiment itself?
- ⁸After a year long deliberation, the MP government passed the 'People's Education Act' in 2002. This Act attempts to make the schools accountable to the people and their representatives: Parent-Teacher Associations and Village Education Committees. However, decision-making on curricular issues has not been decentralised and is retained by the state's education department, the Rajya Shiksha Mission. Private schools are not included within the ambit of this Act.
- ⁹Rashmi Paliwal joined Eklavya in 1983 and has worked on the social science programme.
- ¹⁰Arvind Sardana works in the social science curriculum programme, and has recently been closely involved in two research studies

conducted by Eklavya on children's perception of 'sarkar' and on concepts in geography.

¹¹See Reports, this issue.

¹²The state announced a 'State Advisory Board of Education' (SABE) on the lines of the Central Advisory Board of Education. Professors Gopal Guru, Mushirul Hassan, Krishna Kumar and Romila Thapar were some of the persons approached to be its members. After the closure of HSTP the four of them wrote to the Chief Minister asking for a meeting; this meeting has not taken place.

¹³Ghanshyam has been with Eklavya since 1984 and has worked with the Prashika program. Based at Shahpur, a predominantly adivasi block in Betul district, he now coordinates the 30 Shiksha Protsahan Kendras — community-based, out-of-school support centres — in the block.

¹⁴HSTP materials include workbooks based on guided discovery — outlining experiments on each topic — which the children observe and then draw their own conclusions through the guidance provided. A kit, which is fairly reasonably priced, provides all the materials for the experiments. It has items like a low-cost microscope, chemicals, magnets and test tubes.

¹⁵In 1973 the UGC provided fellowships and Delhi University allowed for any of its faculty members participating in HSTP to be granted leave with pay for one semester. From 1982 onwards, the UGC offered Eklavya five fellowships which it could provide to college and university teachers to take two years' academic leave in order to work with the organisation.

¹⁶The Kothari Commission had recommended the implementation of a school complex comprising a nodal high school, its feeder middle schools, and their feeder primary schools. When this idea was implemented as part of HSTP, it referred to a high school at the block level, which was the nodal high school for HSTP monthly meetings and follow-up. It managed not to split when more high schools came up, nor did it go down the ladder to the primary schools. It should be kept in mind that the DPEP concept of cluster is not the same since it links schools not vertically but horizontally. It is only recently that middle schools have been made cluster headquarters — but their roles are yet to be clarified.

¹⁷Prashika has developed an integrated curriculum which includes both academic and non-academic skill areas such as comprehension, expression, problem solving, creativity, etc. The teaching-learning materials comprise of books that present a broad sequencing and a provide exemplar activities; decisions about what and how to teach are made by the teacher. The programme requires that teachers develop an understanding of children's development and the subjects being taught. As with other curricular packages of Eklavya, inservice teacher education is also integral to this package.