PRASHIKA

Eklavya's Innovative Experiment in Primary Education

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A report by
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PREFACE

For a very long time now, education in general, and primary education in particular, has been a low priority item on our national agenda. The hierarchical structure in which our educational programmes are rigidly organized leave very little scope for any innovative intervention. Even when a group of people gather the courage to undertake an innovative experiment, the experiment generally flourishes for a while and then quickly disappears into oblivion. The system does not generally allow any space for such innovative experiments. The experiences and struggles of these innovative experiments, whenever they do manage to materialize, are rarely documented and made available to the subsequent groups involved in new methods of teaching.

Prashika (pronounced *Praashikaa*), the primary education programme of Eklavya, a voluntary orga-

nization working in Madhya Pradesh (Central India), is one such experiment. We have been associated with this programme right from its inception and have been a witness to its growth and development. We feel that Prashika is an extremely important and meaningful experiment in the area of primary education in rural schools. It is a sustained attempt to provide interesting, meaningful and constructive opportunities to children to acquire knowledge and to equip them with observational and analytical skills. It does not insist on any major structural changes in the school or any enhanced financial inputs. Prashika is really a symbol of a symbiotic collaboration between children, teachers, social activists, researchers and academics. The Prashika experience needs to be carefully documented for the benefit of all those who may be interested in primary education.

We feel that it is important to document the Prashika experience. The documentation was made possible by a grant from Eklavya. The Prashika documentation team plans to bring out seven monographs in English and Hindi. The first one is meant to be a kind of project narrative which would briefly outline the beginnings and development of Prashika and provide a glimpse of different aspects of the programme. A monograph each is to be devoted to assumptions and

principles, curriculum, method and materials, teacher training, evaluation and administrative aspects. The seven documents together will provide a detailed profile of Prashika, though it has been decided to make each monograph complete in itself. We are indeed very pleased to publish the first monograph in the documentation series.

An experiment like Prashika is made possible by the convergence of a variety of factors. Prashika originated in a group like Eklavya which believed in a vision that promised emergence of social justice through education, and which had a rich experience of intervening in school education through the Hoshangabad Science Teaching Programme. A large number of teachers, children and resource persons contributed significantly to the growth and development of the programme. Finally, funding agencies such as the Ministry of Human Resource Development and the Department of Science and Technology as well as active collaboration of the Madhya Pradesh state government and the State Council for Educational Research and Training (SCERT) made the Prashika vision a reality. The contribution of the Madhya Pradesh state government, particularly through its SCERT has indeed been exemplary. It is hoped that other states in the country will also provide

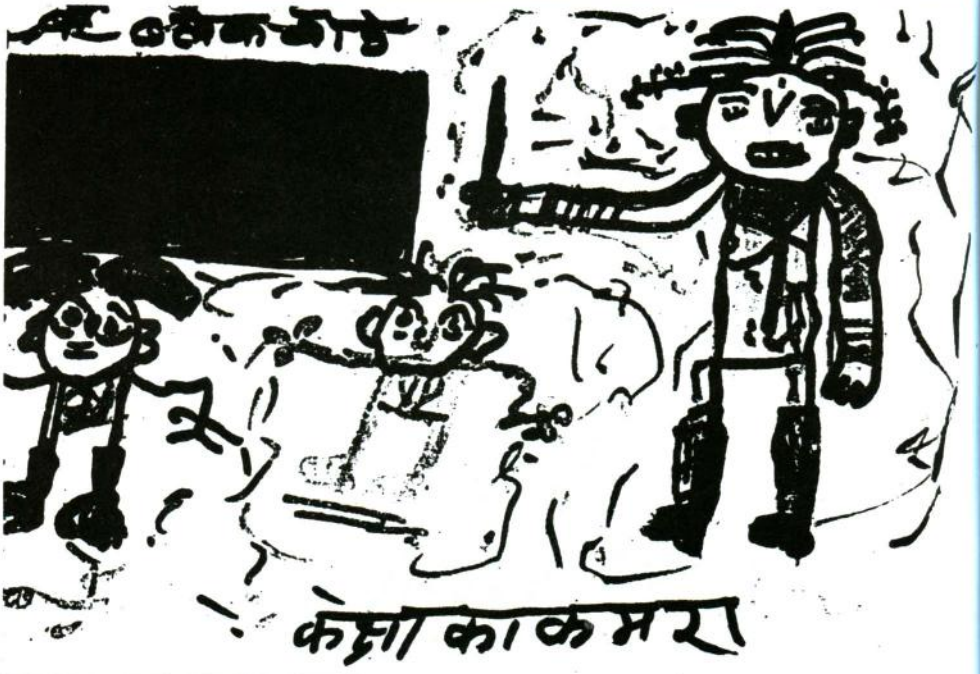
non-governmental organizations space for innovative programmes.

The effort that has gone into preparing this monograph is indeed very difficult to document. We carefully read through Prashika documents, materials, correspondence, etc. We attended several teacher-training camps, interacted with schoolteachers and children, interviewed Prashika members and associates and requested a large number of people to read through the earlier drafts of this document.

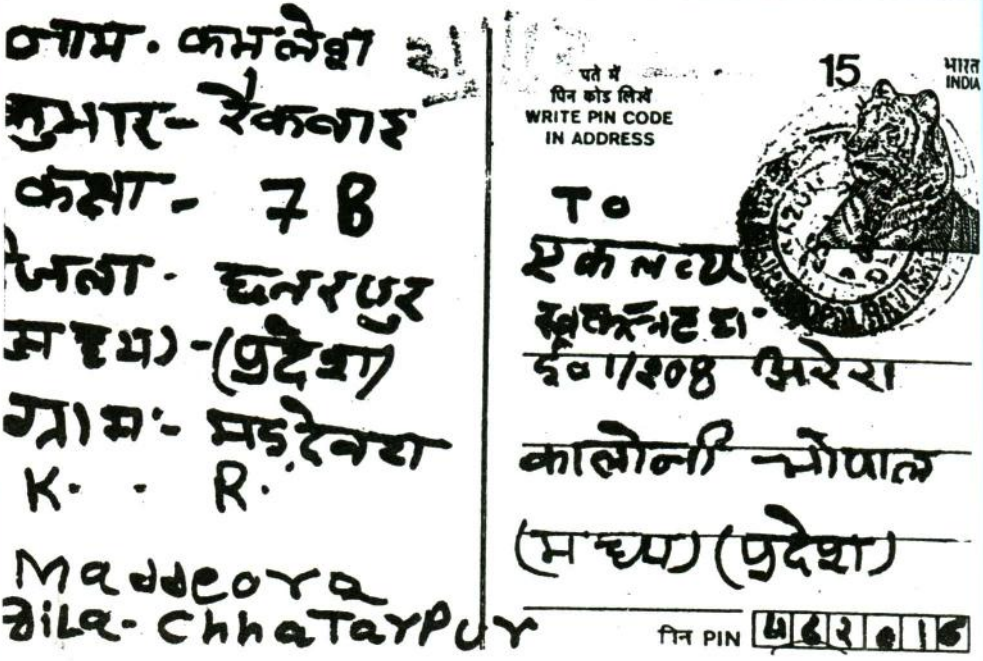
We have benefited a great deal from the comments of Vijaya Varma, Amitabh Mukherjee, Krishna Kumar, Anjali Naronah, H.K. Dewan (Hardy), Rekha Sharma, Deepa Jain, Veena and Ghanshyam Tiwari. We are particularly grateful to Vijaya Varma, Hardy and Anjali for reading through the whole document very carefully and making useful suggestions, most of which have been incorporated. Most of all, we are grateful to the Eklavya Group for not only providing the funds for this project but also for helping us in every possible way to finish this document.

AUTHORS

THE BEGINNING



A child's view of the classroom and the teacher
(sent to Eklavya on a postcard)



Primary education is one of the most neglected areas of education in our country. This is despite the fact that its importance has been widely recognized. Over 70 per cent of our primary schools are understaffed and ill-equipped. There are thousands of primary schools without a teacher, blackboard, toilet or drinking water. There is no clearly formulated primary education policy. Going to primary school simply means learning to read and write, and doing some elementary arithmetic. The socio-cultural and linguistic background of the child is of no consequence to curriculum planning and classroom interaction. Classrooms are therefore characterized by a lack of activity and meaningful interaction between teachers and children. This situation is made worse by utilitarian social expectations and a highly indifferent and repressive administration. There is no space here for teachers to grow or to develop innovative programmes.

THE 1971 CENSUS OF INDIA NOTED . . .
A high order of waste occurs in the first few years of the primary stage of education, since boys and girls are drawn away to help in cultivation and shepherding . . . vacations in many places are not synchronized with the heavy agricultural seasons of sowing and harvesting. . . .

Of every 100 students who enter Class I, only 32 graduate to Class V.

The appalling socio-economic conditions in which teachers and children work severely limit innovation and creativity. Poverty forces many children to come to school on an empty stomach. They cannot attend school regularly since they are often needed at home to help with domestic chores or to add to the family income. They have no money to buy books.

Several classes are often conducted together since there is a perpetual shortage of teachers. Thus the sacred premise of a homogeneous class having at least one teacher to itself (on which the whole edifice of existing educational practices is built) just does not exist in reality. In any given class there is always a great disparity in age and levels of learning. The experiential and cultural background of children rarely

A PRASHIKA MEMBER WRITES . . .
Limited space in crumbling and sometimes unsafe buildings; an absence of materials such as chalk, textbooks and paper; a harassed and ill-motivated teacher handling more than one class simultaneously – many an innovative material and method can meet its waterloo here.

gets reflected in school textbooks and teaching strategies. Rural life is often represented as some rare and romanticized specimen. The children coming to these schools often speak different languages, wear different dresses, eat different kinds of food, live in different geographical surroundings, and participate in different socio-cultural events. This does not inform the materials and methods used in these schools.

THE ORIGINS OF PRASHIKA

The beginnings of PRASHIKA (Prāthamik Shikshā Kāryakram), the primary education programme of Eklavya, go back to the year 1983.

The programme is rooted in the initial discussions that some members of the group involved in HSTP had with some teachers and students of the Department of Linguistics in the University of Delhi. There was deep anxiety, almost a sense of frustration, regarding the levels of reading comprehension and writing abilities prevailing among middle-school children. It was clear that serious efforts would have to be made to enrich the linguistic abilities of these students. Otherwise all the efforts made at the middle-school level in teaching science and social science would not bear any fruit irrespective of the innovative methods used. The bare minimum achievement of a 12-year-

EKLAVYA . . .

A voluntary organization in Madhya Pradesh (central India), has been engaged in innovative programmes in education for the last ten years. Eklavya's major preoccupation has been to intervene in school education with a view to providing alternative curricula and teaching methods without insisting on any major structural changes. THE HOSHANGABAD SCIENCE TEACHING PROGRAMME (HSTP), originally started in 1972 by Kishore Bharati, another voluntary organization, is indeed Eklavya's most widely known programme. It encourages children to arrive at laws and concepts through a process of observation, experimentation, analysis and discussion. It has since become an important reference point for any innovative experiment in school education. The SOCIAL SCIENCE TEACHING PROGRAMME (SSTP), started in 1981, has experimented with innovative ways of teaching history, geography, etc. to middle-school children. It places emphasis on developing skills of historical analysis, comparative studies and data elicitation, tabulation and analysis. What informs all the activities of Eklavya is the awareness that education cannot be isolated from its social context and that meaningful child-centred education can motivate people to change the conditions in which they live.

old Class VI student should be that (s)he be able to read and understand simple Hindi texts on her/his own and have the ability to adequately and coherently express herself/himself. Unfortunately, this was not the case.

It was clear that suitable teaching materials and strategies could be evolved only after the socio-cultural and linguistic background of the learners was properly understood. It was believed that the early education of the child should not be a break between the school and home environment. However, the available teaching materials in primary school appeared very distant from the environment of the child, both in terms of content and language. The teaching methods were essentially teacher-oriented and the classroom activities were centred around rote learning. This situation inevitably led to the child's alienation. (S)he was indifferent to what was being taught. (S)he was also largely silent in the learning process.

FIELD SURVEYS

An attempt was made to understand the linguistic abilities of children and the patterns of language use obtaining among them through a variety of tests and sociolinguistic surveys. Studies were designed to measure the readability levels of different textbooks

available to children. A detailed observation of classroom activities was initiated at this stage. The HSTP experience had brought out the deplorable levels of mathematical abilities in middle-school children. A number of surveys were carried out in 1985-86 to

OTHER ACTIVITIES OF EKLAVYA . . .
include publication of

1. CHAKMAK, a monthly magazine for children;
2. HOSHANGABAD VIGYAN, a quarterly journal addressed to teachers, parents, educationists and people associated with different programmes of Eklavya;
3. SROTE, a weekly science news feature service catering to newspapers, radio and television;
4. some local magazines for children, often produced by them;
5. a variety of books for children; and
6. several booklets for the popularization of science.

Eklavya is also actively involved in people's science movements organizing study groups, workshops and street plays on social issues and their relationship to science and technology. It has also undertaken experiments in producing scientific and educational toys for children and has set up its own workshop for wood and metal work.

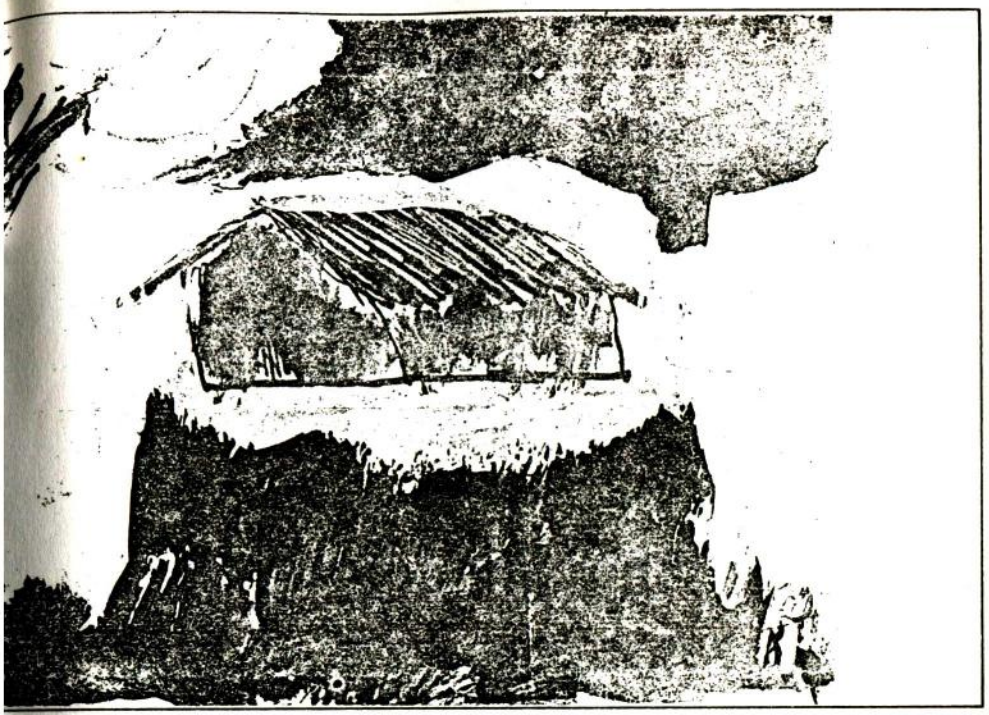
assess basic mathematical abilities such as addition, subtraction, multiplication and division in children.

These studies helped to lay a solid foundation for the subsequent growth of the programme. First of all, they helped the group to establish an informal relationship with teachers, children, parents and the administrative authorities of the area. They also revealed the enormous heterogeneity of the linguistic and cultural background of children, contrary to the belief that they all come from Hindi-speaking backgrounds. The available school textbooks were found to be largely unreadable and a majority of the school population tested was found to be at the frustration level of understanding them. In the case of mathematics the survey showed that the performance levels of children were far below the expected levels. For example, Class I children are supposed to master numbers upto 100. The survey showed that even Class II children could not adequately handle basic operations upto 20.

It was clear that Eklavya would have to prepare its own teaching materials for both language and mathematics. Two important observations that subsequently became the backbone of the programme were: children had enormous creativity for which the existing structures did not provide any outlets, and teachers

showed great potential and eagerness to participate in evolving innovative teaching materials and methods.

At this stage a series of psychological studies were also conducted to have some understanding of the cognitive abilities of children. A series of Piagetian tasks (for example, classification, seriation and number, liquid and weight conservation) was designed to examine these abilities. Several children could not successfully perform the various conservation tasks appropriate for their age levels. Though classification and number conservation tasks were done with a fair amount of success, the seriation task surprisingly



नाम संदिप शर्मा
कक्षा ७वी उम्र १२ वर्ष
पता : हाऊसिंग बोर्ड कालोनी ११५
~~नागदा~~ थार म.न. ११५

seemed to present serious problems. The conservation of liquid and weight also seemed very difficult. One interesting result of these experiments was that children who could not perform the tasks with unfa-

miliar objects and standardized instructions performed the tasks successfully when the language was reframed and more familiar materials were introduced.

The most significant gain of these early studies in language, mathematics, psychology and socio-linguistics was to sensitize the group to the learners, their language and environment, and their teachers.

Simultaneously, during 1983-86, the group was engaged in intensive classroom observation, discussions with teachers and parents and observation and analysis of the patterns of social and linguistic behaviour obtaining among these children. An analysis of the linguistic and mathematical abilities of children, observation of the games they played, the stories and poems they liked, and their patterns of behaviour in their peer group and in the classroom, etc. went a long way in helping the group to plan its teaching materials, methods and teacher-training camps.

During this period extensive field testing of NCERT and Eklavya teaching materials was also undertaken. As a spontaneous response to the field situation several activities and alternative teaching strategies emerged which seemed to work, i.e. they involved the learner far more actively.

Yet another strand was the exploration of the

implications of introducing written materials to learners belonging essentially to the oral tradition. The imposition of the written mode on the oral one seemed to retard the learning process. Most of the teachers themselves were first-generation learners of the written mode and were not yet trained to adapt the different written materials to the needs of their students. It was also found that several folktales and poems were shared in slightly modified forms. This laid the foundation for evolving local materials which were flexible enough for the teacher to modify according to the needs of her/his students. The mathematics surveys not only confirmed the need for change but also indicated the direction of change. The

A PRASHIKA MEMBER OBSERVED . . .
The group's understanding about language and cognitive development was clarified as it interacted more and more with linguists, psychologists and educationists.

emphasis had to be on understanding and reinforcement of different concepts through a variety of activities. The need for approaching the same mathematical concept from a multiplicity of perspectives and in

a variety of contexts became apparent. There was a need fo a large number of pre-number activities centred around concrete materials.

> A PRASHIKA TEACHER OBSERVED . . .
> Prashika means more work for the teacher. There was no work in the old syllabus. We have to create activities and participate in them. At the same time, we have to help children to read and write.

CONSOLIDATION

Until 1986 the enquiries into the linguistic and mathematical abilities of children and possible alternatives proceeded fairly independently of each other. It appeared that two independent programmes would be undertaken, one focusing on language and the other on mathematics. However, shared guiding principles underlying both language and mathematics teaching, the possibility of a common set of cognitive abilities underlying language and mathematics learning, and the imperatives of the school situation described above persuaded the language group to move towards an integrated curriculum.

Around 1986, the groups working on language and mathematics gave way to Prashika and a tentative

integrated curriculum was started in schools – one in Shahpur in Betul district and the other in Harda in Hoshangabad district.

In 1987, the state-sponsored curriculum for Class I was replaced by the Prashika curriculum in seven schools – 4 in Shahpur and 3 in Harda.

By 1989, this number had increased to 25. The state government allowed Prashika to take over these schools completely, i.e. Prashika could try out innovative teaching materials in these schools, organize teacher-training camps, change teaching strategies and evolve new methods of evaluation.

THE WORLD OF PRASHIKA

The emergence of Prashika is a rare example of an active and productive collaboration among children, teachers, social activists, university students and teachers, educationists and administrators. The above surveys and the future development of the programme were made possible only through a dynamic and sustained interaction among all these people. Though because of pressures of time and lack of manpower, the group was often forced to take ad hoc decisions and implement curricula that had not been as intensively field-trialled as Prashika would have liked it to be, it always showed remarkable perseverance and

rigour in its approach. Issues central to primary education, curriculum planning, methodology and materials preparation were regularly discussed in workshops and seminars that involved people from a variety of backgrounds in addition to being discussed with teachers in various training camps. What follows is the story of what Prashika did in these schools during 1986-1992.