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EDUCATION FOR DEVELOPMENT;  
SOME EXPERIENCES FROM AN  
ACTION RESEARCH PROJECT

by

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## EDUCATION FOR DEVELOPMENT: SOME EXPERIENCES FROM AN ACTION RESEARCH PROJECT

T. V. Rao

### Action Research in Education

The concept of action research emerged out of disillusionment with research contributing to the improvement of a practice, or resulting in social action. The gap between research and action, between theory and practice, concerned some social scientists who initiated the movement of action research. Kurt Lewin's experiments of involving the persons implementing the results of research, or the change programme, were the beginning of the movement of action research.

As a citizen deeply sensitive to the world in which he lived aware of the personal tragedies caused by oppression and prejudice, Lewin devoted much of his scientific work to furthering the understanding of the practical day to day problems of the society (Deutch, 1953). Lewin felt that the social scientists could not only contribute to the solution of social problems but also that the study of attempts to produce change in social conditions would make possible scientific insight into social processes which might not otherwise be attainable. Lewin felt that linking research to social action might give the social scientist access to basic social processes

which he would otherwise be unable to study. With this orientation Lewin was certainly able to stimulate a number of field experiments with industrial, educational and social organizations.

The concept of action research has been clarified through the various studies undertaken in the field of social relations and education. Action research has been defined in terms of the relationship of research with field practices. Corey (1953, p.6) who has been a very committed pioneer in the use of action research in education, defines action research as "the process by which practitioners attempt to study their problems scientifically in order to guide, correct, and evaluate their decisions and actions".

The traditional concept of action research follows Lewin's 3-stage model of social changes: unfreezing-moving-refreezing. The action research process consists (with some variation) of the following eight steps: (1) dissatisfaction with the current state of affairs, (2) identification of a problem area, (3) identification of a specific problem to be solved through action, (4) formulation of several hypotheses, and their preliminary testing, (5) choice of a hypothesis, (6) design of action to test and implement the hypothesis, (7) evaluation of the effect of action, (8) generalisations. These are essentially the various steps of problem solving (Pareek and Khanna, 1964). The psychological processes underlying such steps, or stages in change, have been discussed by Singh and Pareek (1968) in connection with the use of action research in the adoption of improved agricultural practices in India.

Besides broader social issues like prejudice and group problems, problems of education is one area that attracted the attention of action researchers in India and abroad in the past 30 years or so. Publications by Mackenzie (1947) Corey (1953) Smith (1952), Hicks (1954), Wiles (1953) Wrightstone (1949) are some of the earlier proponents of action research in education.

In India also education appears to be an area that has quickly reacted to the idea of action research. Pareek and Khanna (1961) were the first to introduce this concept in India, although action research without having that label has been in existence in the country since ages. Corey who is a pioneer in the area of action research organized action research workshops in India in collaboration with NCERT in early 60s. Details of an inservice training workshop in action research conducted by Corey and Pareek (1967) are also available. Prayag Mehta has initiated a series of action research experiments in education when he was with NCERT on experimenting with classroom behaviour of teachers and increasing achievement motivation of teachers. For details of these efforts see Mehta (1965; 1969, Mehta and Rao, 1973). Pareek and Rao's (1971) experiment on classroom behaviour modification of teachers is another example of action research in education. Prayag Mehta's researches concentrated on increasing achievement motivation of teachers and students through achievement motivation laboratories and studying the impact of such increases in achievement motivation on their later performance in the school. Pareek and Rao's studies concentrated on studying the classroom behaviour of teachers and developing certain interaction behaviour patterns

in them through feedback and training, and studying the impacts of such changed teacher behaviour on students.

This paper is intended to share some of the experiences, the members of the Education Systems Unit\* had in relation to an action research project on educational innovations. In this project a series of attempts were made by a group of us to introduce change processes in rural areas and in schools and study their impact on the development of people. Three of us were associated with this project for different periods of time and with varied involvements. Professor Pareek took part in the first six months of the project, my association lasted for over an year and a half since its inception in 1975 and Professor Ravi J. Matthai who initiated the project along with a team of independent volunteers and a group experts from institutions like National Institute of Design continues to be actively involved. The detailed processes and learning experiences from this project are being documented in greater detail by Professor Matthai for a report to ICSSR. I am restricting myself in this paper to describe the action research processes and learnings relating to education where I have played some role directly or indirectly along with Professor Matthai, the initiator of this project. The learning

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\*The Education Systems Unit at the time of these experiments consisted of Professors Ravi J. Matthai, Udal Pareek and the author.

experiences from rural development angle are extensively covered in Professor Matthai's report. In this paper I would first like to share the experiences in this project, in the second part I would like to discuss the concept and need for action research in any work involving change and development and then to raise some issue, for future action-researchers.

### The Experiences

#### The Background

When the Education Systems Unit consisting of three of us (Professor Ravi J. Matthai, Uday Pareek, and T V Rao) was formed in 1973 we decided to work with a State Department, a university and some other academic institutions in order to understand the problems of change and management in these institutions. While we started our work with an agricultural university and a few other institutions we were looking for opportunities where a state government would be interested in having us participate in the change process of education. It was not until 1975 March when three of us were attending a UNESCO Workshop on Educational Innovations at Delhi when we shared our thoughts with Professor J.P.Naik of ICSSR, it took a proper form. In an approach note prepared after this meeting Professor Matthai observed that most of the work in change in education in the past was concerned with the content of change, institutionalising innovations and imposing ideas from the top rather than understanding the change process and developing innovative and proactive capabilities in institutions. Professor Matthai's note proposed

working on an action-cum-research project that is intended to bring about change in the educational processes in the selected states. The note also proposed to leave the research methodologies open and let them evolve as the project progresses. This note also left the determination of problem areas, priorities, methodology, and strategies of such research-cum-action project to be determined by the research team and the team of internal change agents nominated by the department. It was envisaged at that stage merely to select particular organizations in the state, study their structures and processes and design strategies to stimulate the processes of change. The note stated that the outcome of these experiments should be capable of generalizations. The note also stated that the experimenters would be less concerned with whether substantive change can be generalised than with the question as to whether the strategies to influence organizational processes, if successful, can be generalized.

Accordingly a project team was formed consisting of Anil Bordia, Ravi. J. Matthai (Co-ordinator), Chitra Naik, J.P. Naik, Udai Pareek, and the author. The active association of Professor Naik and Mr Bordia was limited to the initial few meetings, Prof. Pareek to six months and the present author's to eighteen months whereas Professor Matthai still continues to be actively involved.

At this stage Rajasthan Government expressed their interest in having the team work with them. At that time in Rajasthan a committee called as the High Power Committee came out with a report



on educational reforms in Rajasthan and the team was asked to help the state to carry on their experiments in the context of this committee's report. Along with other things, the committee expressed the following concerns in relation to education:

1. Poor enrollment rates in primary schools inspite of opening a number of new schools;
2. Alarming number of dropouts (about two-third ) by standard V resulting in wastage and stagnation;
3. The fact that about 50 per cent of the population in age group 15-25 have not been able to go to school at all,; and
4. Very little or practically no enrollment in schools from poor families of the society; landless labourers, and economically backward groups.

The Education Systems Unit from IIMA (Professors Matthai, Pareek and Rao) toured round and had a series of interviews, meetings and discussions with various officers of the department, headmasters and teachers in Jaipur and Ajmer, in an effort to understand the existing pattern, systems and problems of education. Some of these observations made during these initial survey meetings are presented in Appendix I. From these meetings we got the feeling that primary education is the main subsystem that presented a grave problem to the education system. Hence, we wanted to concentrate our efforts on this subsystem. After collecting the data, the total project team met with the state team\* and decided on the following strategies to be adopted.

\*The state team consisted of the Commissioner of Education, Director of Education, a Professor from a training college and a Senior Deputy Inspector of Schools or Sr. Dy. E.O.

1. In relation to increasing enrollment in schools of the age group to 6 to 11 and 11 to 14/was proposed /it to try out different experiments in different areas. For example in some areas some experiments to try for 100 per cent enrollment were thought of.
2. Several experiments in non-formal education were also conceived. For example, experiments like involving senior students to teach in non-formal centers, forming non-formal school complexes to reinforce non-formal center , mobilising total resources to teach in non-formal centers, trying out different strategies for mobilising communities with differing local enthusiasm for non-formal education, etc. were thought of.
3. It was decided to experiment with enriching and mobilising the role of teachers and helping him use the local resources to the maximum extent. The concept of an associate teacher from local resources was also proposed to be tried out.
4. A forward district, a tribal dominant district and a desert areas were proposed to be experimented on the above dimensions. To begin with Ajmer district was chosen for the initial experiments.
5. It was decided to have one internal change agent from the department associated full time with these experiments. His function was to transfer the experience from the experimental district to other districts.
6. It was decided to maximise the number of experiments than to maximise the number of trials of the same experiment.
7. As a general strategy any change that is to be introduced was proposed to start from the bottom than to impose it from the top.
8. A manual for non-formal centers, trying out some experiments with single teacher schools and experiments on reducing the costs of middle schools were some other ideas that were proposed to be attempted.

In our earlier meetings, the inspectors of schools pointed out that EEO is supposed to guide and supervise the primary school teachers at the village level. We were also told that he is directly under the BDO. As the BDO is not using him properly and the Samiti people and the villagers do not take enough interest in the primary schools we felt that the linkages of the primary education system are very weak and that they need to be investigated. We had not visited enough of rural schools by then. We had some doubt on the use of autonomy by the primary schools, extension education officers and others. We felt that giving primary education to Samiti left a lot of scope for autonomy. We wanted to find out more details about the use of autonomy, interest taken by the EEO BDO, Sarpanch, and others in the villages to develop schools.

In another trip we visited 4 blocks of Ajmer district where we had detailed interviews, meetings and discussions with BDOs, EEOs, Samiti Pradhans, Sarpanches, school teachers and such others. The interviews were largely unstructured. The nature of the data that emerged out of these visits and interviews are presented in Appendix 2. While our interviews with groups of personnel from education department aimed at understanding the various processes operating in education our interviews with BDOs, other personnel of BDO office and people in the Panchayat Samithies centred round understanding the linkages between education department, the development department and the community.

In sum from our various discussions and trips we observed that:

1. Villagers were not keen to send their children to schools;
2. They feel that education is not helping them to earn their food;
3. The parents are disappointed with their educated young men in the villages who considered working in fields and manual labour as below their dignity and are reluctant to help their parents;
4. The educated also do not get any employment and there are many unemployed;
5. Some schools have started innovative vocation-based experiments like teaching, carpentry, agriculture, chalk-piece production, tailoring, etc. to students;
6. However, in many schools where these activities started, they soon died because of lack of market for some of these activities and organised effort to maintain these activities and so on;
7. In the beginning while people appreciate such activities it is more a 'tamasha' in several places than any practical benefits coming out of it;
8. There are many resources in the villages which have not been exploited;
9. The villagers and teachers communicate very little with each other as both of them are busy with their own duties and have little time for interaction;
10. Such lack of interaction resulted in teachers being blind to the resources in the villages;
11. Perceived rigidity in the educational system did not reinforce the teachers to think beyond their classroom; and
12. Traditional images with the current stereotypes prevented the villagers from approaching teachers and taking their help.

In sum, we felt that education has become irrelevant to the masses and it has to be totally reoriented to make it relevant and the current attempts like non-formal education, etc. are good but insufficient in scale and quality for the social needs. There is a great need to explore resources and use these resources through the educational system.

With this background we felt that we should do some intensive work with a block. Such intensive work should involve strengthening the roles of the BDO, the Pradhan, the Sarpanches, the EEOs, and the other extension officers at the block level. The roles of these various persons could be strengthened through involving them in the project and bringing them closer to the educational systems.

In our discussions with the Block Development Officer, Pradhan, Sarpanch in Jawaja block we were told that this is the most backward block in Ajmer district. There is generally drought in that area and there have been problems arising out of this. We felt that after identifying the resources in the block, linking up these resources and initiating economic activities on these resources may form a good base for starting the work oriented education. In Jawaja we were told that there is lot of China clay which is being exported to other countries by some parties. This resource could be exploited and thus we felt that Jawaja may be the right block to be selected for intensive study. In our discussions we were also told that there are lot of sheep and

cattle. We thought that this is another resource that could be exploited for starting economic activities. We wanted to explore many other resources or any other resource available in this area which might help us start economic activities. We felt that this is necessary to plan some projects if we have to impress the villagers on the need to educate themselves and their children. These projects should be visible and should cover as many people in this village of this block as possible. This was another consideration we had in mind before thinking of selecting any methods of starting any economic activities. The discussions we had on the strategy we wanted to adopt in this block at this stage are summarised in Appendix 3. We tried to obtain information on these dimensions using the development department as well as education department and by ourselves touring in the villages.

#### The starting points of action in Jawsia

If the resource have to be exploited, first they have to be identified. We thought that the most important resources in identifying the resources is the Block Development Officer and his staff who are continuously in touch with the villages and know what is happening in the villages. We also thought that the Sarpanches of different villages and the Block Pradhan are also important sources of information for identifying the resources. We organised a meeting with the BDO, Block Extension Officers, Pradhan and the / discussions with each of them separately and in groups. They all Sarpanches. We had/understood our task and appreciated our concern to make the education more relevant to people. They said that many things could be done in their block and that they would extend all

cooperation. In our repeated visits and discussions with them, we were convinced that several resources existed in this backward block and a lot could be done if the development and education departments work together. In our discussions listed with the officials above we identified a few resources in the village. For example, a nearby forest, availability of "quartz" rocks, sheep wool, weaving skills, brick-making mud, dairying, leather work, etc. were identified. We then wanted to ascertain the feasibility of starting some economic activities in this block and the role of education institutions can play in this. For example, in relation to weaving we tried to collect information like (i) how many weavers are there in the block, (ii) where do they get their raw materials from, (iii) how much they spend on the material, (iv) how much time they take for weaving a piece of cloth, (v) what kind of things they weave, (vi) what kind of looms they have, (vii) is there any scope for improved looms, (viii) can they learn new designs of cloth, (ix) what is the scope for making new products like carpets, etc. (x) what is the market facility, (xi) how much contacts they have with others, (xii) are they willing to work in groups so that they can get raw materials cheaper, (xiii) have they any experience of working in groups and what is the nature of such experience, (xiv) are they willing to send their kids to school if the school teaches them these things, (xv) are they willing to teach new people who are interested in that village the weaving skills they know, (xvi) how much motivated are they to earn more through such activities, and (xviii) how much do they see improved technology as help them? etc.

In our efforts to link education with rural development in this block we tried out a number of experiments in this block. From among the resources identified we could start economic activities that made use of local wool and cotton and resources and local skills in leather work and weaving. We also attempted to organise economic activities centering round agricultural pro-

like tomatoes. In starting all these economic activities we took the help of some outside agencies. The details of these activities and various processes involved in initiating these activities and insights gained in initiating these activities are all documented well by the initiator of this project, Professor Ravi. J. Matthai, elsewhere. I am not going into the details of these activities partly because I do not see the activities per se of great relevance to our learning about linking education with rural development. I would only like to attempt at some generalization relating to the change processes in education.

#### The Experiments and Experiences

All our action-research efforts have been concerned around introducing economic activities in the community and constantly pushing the formal education system to participate in the change process initiated by us, or replace us by taking our role without attempting any substantial structural changes in the school systems. We have been able to introduce several economic activities and initiate the change process atleast in some villages and in some



facilities but could not bring in any manifest change in the educational processes next door. One main reason is that there was direct economic benefit involved for those in the community who are direct participants in the change process and intellectual benefits for the action researchers whereas the teachers probably perceived neither of them as a possible reward for their involvement. We attempted at various strategies for linking them and trying to help them take initiative. These strategies met ~~are~~ with varying degrees of success. These strategies are outlined below.

### Fear Arousal

In most of the discussions we had at villages and schools of Jawaja, we constantly pointed out to the teachers that school enrolment rates are falling, parents are not interested in sending children to schools as they do not see schools as helping them to earn their living and if the situation continues, many schools may have to be closed down. In order to save their jobs and protect themselves from this situation the teachers should participate in community life, generate economic activities and evolve their education activities round these economic activities, and start teaching more useful and practical things to children. If this does not happen we warned that alternative systems would evolve and throw them out of jobs. Whenever we suggested this the teachers nodded their heads, but nothing happened later. Either this was too unreal to believe, or they were too secure to be bothered by this. There was by and large very little concern about poor enrolment. On the other hand their concerns were on upgrading

schools, examination systems, school building, etc.

#### Reminding Responsibilities

Another strategy that was used in most of the schools indirectly and directly through lecture method by some of us in some schools was to draw a diagram of the community with a boundary and locate the school within the boundary, but with strong boundary walls and say that there is very little communication between the two system. Then it was pointed to them that traditionally teacher used to be respected because he was seen as directly preparing pupils for protecting the community and helping the community. Then they were reminded of their positive role in helping the community. Response to this approach were much more positive. Infact, a few days after this, one of the school staff resolved on the republic day to get more involved in the community activities. This infact, they did so partly due to our continuous visits to the school later, although the mechanisms they chose to involve themselves in community activities did not prove fruitful.

#### Reactions of Headmasters to Aforestation

In the earlier stages of our work in this project, we were struck by the idea and suggestion that the area had a lot of trees years ago and subsequently most of the trees were cut, and the ecology of the place changed considerably and there are frequent draughts. When we contacted the forest department they were willing to supply the saplings for aforestation in that area that could

in the next 10-15 years may grow as a great resource in the block. However, the forest department said that they could do no more than supply the technical know how and the saplings in abundance.

Subsequently with the help of the Sr. D.I.S. we called a meeting of all the headmasters of this block and proposed the idea. We proposed that schools are the only resource as they have a lot of human resources that could be utilised in every village. Even if every student plants a tree there will be several of them. We proposed that every school should take up this activity of afforestation in a mile's radius from the village. However, we said that there is no use just planting once and then forgetting about them. They could use this as a great opportunity to teach the students about the ecology of the place, about plant life, about the use of plants and several other biological aspects and help them also to look after these plants for some time.

The reactions were uniformly negative. One of them said that the forest department would never cooperate. Some one else observed that there is no dearth for trees in the block. Some one else challenged that he can get lakhs of trees planted with the help of students in no time but none of them would ever grow. Some of them objected to the education department's involvement in this. A few of them enquired "what is the interest you have anyway?". Some headmasters flatly refused to be involved in these sort of activities. Thus we had to abandon this idea.

At a later stage when we infact got a few saplings to be planted in some schools and left them at the BDU's office, they were left lying there for a few weeks till ultimately the Sr.D. I. S. arranged to pick them up and plant in one of the schools.

Initiating Economic Activity and Organising a Behavioural Science Workshop for Increased Involvement

In one village where weaving on 60" looms was introduced with the help of NID and Weavers Service Center experts and the weavers were taught to weave cotton-woolen mixed carpets and blankets on them, and were helped to obtain loans from bank and their earnings increased from Rs.5 to Rs.20 a day. For introducing these activities in the village we have had to spend a lot of time in the beginning to identify the resources, to identify interested people, to try out new designs on their old looms to work with carpenters for the new design of 60" looms, to work for obtaining a location for looms, to teach the designs to weavers and to help them to understand the repayment system, raw-material costs, profit calculations, quality control, etc. In every visit we made to the village and every activity we did for about four months we continuously kept the school informed of what we are doing and why we were doing whatever we were doing, inviting them to participate and pointing out the roles they can play in this whole process. In spite of all this, nothing happened. Not a single teacher from that school took initiative and moved out of the school boundary to find out anything more. Ultimately we organised a three day behavioural science workshop (a) to increase their sensitivities to community needs, (b) to arouse interest in making

education functional, (c) to increase the sense of efficacy and productivity, and (d) to help them plan concrete steps to participation in community life. Various techniques like games and psychological exercises were used to bring to surface their images about the community, their collaborative orientations, their expectation behaviour, etc. One of their officers also participated in this workshop. They greatly appreciated what they learnt in the workshop and prepared action plans that suggested that they would be attempting to understand what is going on in that community, they would try to help the weavers more, they would themselves learn weaving, they would introduce weaving as work experience in the school, etc. However, nothing happened after the workshop. The teachers never bothered to find out what was happening next door. An attempt made by the author to remind them a month and a half later resulted in a hostile exchange among themselves blaming each other for not taking initiative and the headmaster ultimately gave up saying that nothing can happen in this school as everyone has his own important matters to attend to after the school hours. Although they resolved later to pursue their action plans, there was never an instance of their taking initiative to know more in the subsequent years. None of these teachers stay in that village and all of them stay in a near by town. We were told that some of them are money lenders. This experience amply demonstrated that when teachers have stronger interests besides their teaching interests, any amount of intervention by an outside agent, howsoever legitimate it may be, it is likely to get very little result.

#### The Idea of Teachers' Cooperative

In the earlier stages of the project after some

economic activity was started in one village and we conducted a workshop for the teachers of that village, we wanted to enthuse the teachers of another village and help them to initiate economic activities. In our earlier visits to this school the headmaster and the teachers showed a considerable amount of interest and enthusiasm. So I planned a trip to help the teachers of that village to get involved. The detailed interventions made and events occurred are reported elsewhere. I only present below the salient features and outcomes.

When an officer from the education department and I went to the school the teachers told us that on the republic day they decided to form a teachers' cooperative and to start economic activities. We had detailed discussions after which the teachers decided to contribute Rs.100/- each as share, raise a bank loan for the rest of the money and install handlooms in the school and develop it if possible as a training centre. Their motives appeared to be profit and recognition. Profit because they heard of the increased earnings of weavers of the neighbouring village who participated in this activity. Recognition because we told them that any initiative and experimentation would be appreciated by their department. Some of them had fears about this activity disturbing the school work and transfers creating problems about their share money. The education officer Mr Kumat assured them that there would be no transfers in that school and that they

would be given enough autonomy to reorganise their curriculum. They even worked out a tentative schedule of reorganised time table incorporating work-experience, to be provided for students interested in learning weaving. Their interest was so great that the same day they closed the school early and cycled down to the village where the economic activity was going. The team was led by the headmaster who cycled to the village in the hot sun with running temperature, and to be bedridden for the next few days!

The next day, teachers of this school had discussions on their own and came up with a list of problems they envisaged if they get into this activity. Again the Education Officer Mr Kumat responded to all these issues. One of the major issues was that if they spend more time in the looms the standards may fall down and the students may have problems when they pass from 8th to 9th. When Mr Kumat pointed out that there is no continuity between 8th and 9th standards, and their teaching effectiveness could be increased by using examples from this activity to teach various subjects, the teachers agreed.

However, the idea of teachers' co-operative never took off the ground as the Bankers were not willing to give any loan to employees of government to get involved in economic activities. On hearing the initiative taken by the teachers of this school the District Collector agreed to give a loan of Rs.10,000 from the central co-operative bank. The teachers could not use this as

the interest rate was as high as 13 per cent.

Thus although the co-operative never took an active form in this school the teachers continued to be enthusiastic and even helped the villagers in locating their looms in the school building for some time. They later installed some looms and made some efforts to train some students but there was no serious effort to integrate into the curriculum.

#### Strengthening Role Linkages

As stated earlier one of the strategies we wanted to experiment with is strengthening the roles and role linkages between the BDO, Panchayat Samithi, the Sarpanches, EEOs, Education Officers, and teachers. In order to do this we observed the following norms very rigidly in the first year.

Whenever we visited the block, or any other areas in the block; whenever we initiated any economic activities in any area, wherever we observed some interesting processes we made it a point to inform the BDO, the Samithi Pradhan, and the Sr.Dy. Inspector of Schools at Beawar who had the technical responsibility for educational administration in that area. He was also an internal member of the state department's project team named by the Commissioner's Office in our earlier visits. The BDO, Pradhan, Sr.Dy. I.S. were generally with us in most of our visits in the first six months. All our observations later were recorded in the Inderjit Letters written by Professor Matthai and copies were



reaching both the BDO and the Sr. Dy. Inspector of Schools (Sr. Dy. I. S). By doing so we thought we are communicating the importance of the development department working closely with the education department. These letters and information in the beginning was received with a little eagerness but were taken for granted in later stages. Thus mere keeping the education and development authorities informed and taking them along with us to the villages did very little to strengthen the linkages. All that happened was a mere increase in the frequency of contacts between the BDO and Sr. Dy. I. S.

A similar strategy was adopted at the village level. In Beawarkhas, Kabra, Sargaon, Delwada, etc. villages where economic activities in relation to weaving, spinning and leather products were started whenever we visited these villages in the beginning we used to get in touch with the village Sarpanch, the school teachers and local VLV. Our initial meetings with people who showed interest in participating in the economic activities generally were located in schools of the respective villages and were on school days involving the school teachers and others. With the schools, the only thing lacking was the Inderjit letters. However, these efforts of informing and involving teachers, VLVs and Sarpanches have never resulted in any change in their attitudes, their participation levels or their working closely with each other.

As conceived in earlier stages we also had a few similar discussions with the district level officers in Ajmer and kept them informed of the activities that were going on in this block and emphasising the need for various agencies to work together. We have not done this systematically at the District level and for whatever little we did the returns were none other than moral support from the D M.

Role Negotiation Exercises and Attempts to Legitimize Linkages Between the Development and Education Departments.

A few weeks after the weaving activities started at Beawar-khas and after seeing the low level of initiative being taken by both education and development departments we felt that certain amount of clarity in the roles of the two departments, open commitment of the officers in both the departments and legitimization of the linkages and roles to be performed by both the departments in relation to this project was necessary. In order to do this three days of concentrated work with both the departments was planned by the project team. According to this plan four meetings were to be held by the project team in an effort to transfer the initiative being taken by the project team to the local development and education departments. One meeting with the BDO and his staff, another with the Sr. Dy. Inspector of Schools and his officers, one with both of them with their staff, and another in Collector's office with all of them. The objectives of these meetings were: (a) to get both the groups take initiative

in the developmental activities in the context of this project, (b) to start the process of close collaboration between education and development departments, (c) to obtain support from district specialists as resource people at operational level and (d) to legitimize the project approach and action at the district level.

As an outcome of these meetings and role negotiation exercises over three days the following happened:

- a. Five extension officers of the BDO's office undertook the responsibility of initiating economic and other developmental activities in five different villages which they chose on their own. Such initiative mean determining local physical and human resources in the village, making feasibility studies for these activities, identifying people to be involved in these activities, organising finance, marketing, etc. training people and linking up the activity to education.
- b. It was decided to have fortnightly meetings at BDOs office to assess the progress made by these officers in their villages.
- c. Similarly, headmasters and other officers present in the education officers meeting took the responsibility to play similar roles in another six villages.
- d. In the joint meeting of the development and education departments (i) they mutually agreed to collaborate and respond to each others needs in these activities, (ii) for every pilot village the grassroot action team was decided to include the headmasters and teachers of the village school, the VLV of that area and the village Patwari along with the Extension Officers working in that particular village, (iii) the objective of both the teams was to help villagers to become more self-reliant in looking for and working on opportunities, and organising themselves and no targets would have to be met and the teams would work as teams.

- e. In the meeting with the Collector both the groups presented some of the problems they envisage if they are to do the above things. For example, problems like the restriction on the permitted tours, transfers, time allocation between this project and others, etc. were put forward by the BDOs team and Collector resolved very supportively all these problems. In order to get a similar legitimation from the education department the Sr. Dy. I.S. agreed to write to the Director of Education.
- f. In order to start action villages it was agreed to call all the village teams from the 11 villages (teachers, Patwaris, and VLWs) for a seminar to explain the purposes of the project and to initiate them into action.

#### Village Level Action Groups: Seminar Efforts

As a sequel to these meetings with the officers of the development department, education department and the district administration, a workshop was planned for the eleven village team (teachers, Patwaris, and VLWs). The two day workshop aimed at (a) acquainting the teachers with the work undertaken by the team, (b) helping them understand the need to start economic activities in the villages, (c) initiating a process of their reorientation to the new role they are required to play in the schools, (d) starting the process of their working with VLWs, Patwaris, and other people as a team in this effort and (e) preparing them to face various issues in undertaking the activities in the villages. The Sr. D. I.S. and BDO sent out circulars informing the teachers, patwaris, and VLWs to attend the workshop. Before the workshop some of the EOs and Mr. Arvind Khare (another member of our group) spent some time with some selected schools preparing them to participate proactively in the workshop.

The seminar was inaugurated by the Collector. He was requested to inaugurate with a specific purpose of communicating to the village teams the legitimacy of the project. In his inaugural address which was later published in the State Department's Journal, "Sivira", which reaches every school in Rajasthan, he started the need to generate economic activities in the village and to reorient education for development. He outlined that there is great scope for exploiting local resources and said that present day education has paralysed people than to help them. He also suggested that the education and development teams should work together. His speech was followed by the BDO's and Sr. Dy. I.S's talks stressing the need for the village teams to work together.

A full day was then spent in taking the village teams through the experiences gained by the project team in starting economic activities in a village. This was done through a specially designed group process based exercise prepared by the author of this paper. This exercise outlined various steps like identifying local resources, identifying interested people, winning their confidence, educating and motivating them to get interested, working out feasibility plans, arranging loans with banks, getting the villagers to understand the need to help others in joining the activity, arranging technical supports, working with internal social forces, etc.— all that was done in Beawarkhas where the economic activities were started first with two weavers. This was followed by role plays on how to educate a villager who is

interested in participating in an economic activity but is not willing to take loan from a bank. A quiz encouraging the village teams to compete with one another and testing their learning from the exercise was also conducted. This was intended to help the village teams to work as teams and also to learn more about the process of starting economic activities. Then we shared all our experiences.

After these exercises each village group met as a team and prepared plans about the process they would follow to identify village resources in their areas and for initiating economic activities. These tentative action plans for the next few months were presented by the village teams and were approved in the seminar jointly by the BDO and Sr. Dy. E.O. They were requested to send detailed plans later. After the workshop, some of the teachers went to visit villages where economic activities have started. The understanding was that the five education officers of the BDO's office, the officers of the Sr. Dy. I.S's office and the project team would monitor the progress by visiting these villages once in a while. The project members, i.e., the IIM team, agreed to provide any support the village team asks for, like getting experts from institutions like National Institute of Design, working with banks, preparing feasibility plans, arranging marketing, etc.

As a result of this interventions in one village a teacher took more interest and initiated later with the help of the project team activities like spinning the wool cut from the local sheep, weaving, etc. He was so successful in that

village that he started enjoying a lot of respect from the villagers and this became even a threat to the village Sarpanch. However, this initiative remained at the individual level and the village team could do nothing more than letting him spend a lot of time in the village and his classes were being taken by another teachers. The VLW of that village was positive; the teachers were also positive as far as whatever the teacher was doing and also made a few stray attempts to identify some resources the activities around which did not progress too far.

Another village made a good start in terms of developing a systematic profile of resources. This village team worked together quite well as a team. In another village the headmaster and teachers undertook a survey of the village to outline general socio-economic data. In the village where the workshop was also held previously the teachers made an attempt to instal a loom in their school. In yet another school some attempts were made to make rope from cotton waste. In another village where the headmaster took considerable amount of leadership, attempts were made to instal some old looms in the school and train students on the looms. He kept visiting all these schools and finding out if our help was needed.

While in the economic activities started by our team in a few villages we made a considerable amount of progress the village teams could not progress much beyond generating ideas and conducting surveys. They were hampered by resource myopia. During the six months period after the seminar the economic activities initiated by us extended to a few villages and particularly to the village where one teacher took active part. Two new activities were also introduced in some of these villages. Many more people were brought in. However, very little progress was made in the schools. Looking back I now feel that we had unrealistically high expectations from the village teams. We probably expected them to do things similar to what we did. We had enough autonomy, challenge, committed independent volunteers

institutional support, resources and several other positive factors with us. But the village teams had practically none of these things. The only thing they had is a legitimized involvement. Even this was not through a clear government order but through speeches and words. The usual system of their having to teach in the prescribed time, the prescribed syllabus continued. So whatever they had to do was extra. For the little they had shown, as it was no match to what we did we were verbally or non-verbally communicating our disappointment. Our visits to the schools got reduced. It is probably this unrealistic expectations from us and lack continuous work and encouragement to the village teams, the village teams never took off. They were too scared to do what we were doing. They neither had resources nor the will, support and incentives. In one of the papers entitled "Perceived risk and rural entrepreneurship" Professor Matthal observed that unless social, economic, technical securities are catered to villagers do not get involved in new activities. With teachers it appears that the social economic and technical security they have prevents/ from getting involved in /them new activities and taking risk.



### An Experiment with Structural Intervention

Another type of intervention that worked with a considerable degree of success was a structural intervention initiated by us along with the Education Department in relation to one of the activities.

During our work at Jawaja we were told that tomatoes are produced in the villages in abundance and during peak season the farmers sell these tomatoes to Beawar merchants at throw-away price as low as 50 paise a ten kilos basket sometimes. The merchants make a lot of profit on these by sending truck loads of them to Delhi and such places. We saw this as an activity that offers us ample opportunity to organise the tomatoes growers and help them to earn more from their produce by directly organising their marketing, by trying out improved and drought resistant varieties, helping them even to start a tomato processing plant, etc. As a first step we wanted to organise the 2,000 or so farmers in the villages around Beawar city to form a sort of a tomato growers association and help them retain more money by organising their own marketing. To begin with we wanted to create in them an awareness about the economic benefits they would have by organising themselves. We wanted to do this by group discussions with them.

The first after-dinner meeting we had in one of the villages was a great success. The response was extremely good and people were appreciative of the efforts. Some of the school teachers were with us in this effort and night sessions appeared to be the best. The villagers themselves were motivated enough and wanted to go

with us to other villages and discuss the ideas with other tomato growers. Excited by this we took the help of the headmaster of this school and few other villagers of that village and went the next day to another village in an adjacent block. The headmaster who went with us took the lead and did an excellent job of convincing the farmers to organise themselves for better economic benefits.

In order to continue this process of educating the farmers to organise themselves we wanted to make use of the teachers. The tasks involved were to go to the villages, contact farmers, talk to them about the benefits of organising themselves about how they are being exploited, but how they could also start trying out growing better variety of tomatoes and increase their yield, how the banks can help them the possibility of a tomatoe processing plant and so on. We, together with the Education Department, agreed to try out a different strategy than hitherto followed. The Sr. Dy. I. S. with his other inspector would select ten teachers from those villages whom they consider as forward looking and responsive teachers. They would be asked by the department to work on the task during their summer vacation for which they would get compensated leave. They could also be later rewarded appropriately for good work. This suggestion was agreed to by us and legitimized by the then joined new District Education Officer. The new officer came, heard the details of the project and appreciated the ten teachers

who were called for a meeting with him and legitimized their involvement in this activity. The teachers were told by the education office that they were specially chosen as meritorious teachers to do this work.

This strategy according to me has worked well as the selected teachers by and large have done a wonderful job in contacting farmers, holding meetings and mobilising them. A number of farmers were helped to obtain loans from the bank for growing tomatoes in their fields, and the ideas of organising themselves was planted in them. As usual there were individual differences as later one or two teachers have been found to be somewhat insincere in their work.

This activity could have taken a good shape but for the floods that year spoiling the tomato crop and killing the morale of farmers as well as the teachers. However, the experience indicated that if the education system institutionalizes or legitimates the participation of the teachers in change process and gives them free time to work they can facilitate the change to a very great deal provided there is external support.

#### Follow-up Seminar

A two-day follow-up seminar was organised by us four months after the first seminar for the village teams. The follow-up seminar aimed at acquainting each village team about the progress made by us and the other village teams since the

last seminar, to show appreciation for the good work done by a few teachers on their own and in tomato project, sharing our learnings in relation to different economic activities and providing further momentum for action in their villages. Over a hundred teachers, VLWs and Patwaris attended this. In this two day seminar each village group presented their progress reports, the teachers involved in organising the tomato growers shared their experiences, we shared our experiences and future plans, and the village teams again worked out revised future action plans. This time the action plans indicated low level of enthusiasm in the village teams. This seminar was attended by the Collector, SDO, DEO and other officers. During the seminar two schools where there was considerable initiative and motivation it was planned to develop arithmetic, physical sciences, geograph, etc. curricula centering round these activities.

Following this seminar things moved better in schools where they moved well before the seminar and momentum died down in schools where it was less before it. Most of it could be attributable to our team as we concentrated more on the better schools and less on the schools that needed us more. Self-fulfilling prophecy !!!!

#### Involvement of Teacher Training Colleges

From the beginning we thought that as teacher training colleges prepare hundreds of teachers every year, they could play a great role in influencing the change process through influencing

teacher trainees. While we had this in mind, we were also aware that these colleges in India are highly tradition bound, conformistic and slow in adopting innovations. While we wanted to do intensive work with them after we gained enough experiences in our experiments, we made some stray attempts now and then with the Regional College and the Government T.T. Colleges at Ajmer. I happened to visit both these colleges a couple of times and had discussions with a few faculty members a year after we started the project. I pointed out the various opportunities they have for experimenting in this area. The new faculty I talked were enthusiastic when I visited but made no visible moves later. To R.C.E. even concrete proposals were made for having their Commerce B.Ed. students work on curriculum building on the basis of economic activities started in some villages. The concerned faculty member showed his interest in sending students for a month. But it never took practical shape. Some faculty from the Teachers' Training College also came as observers to our village team seminars but the seminars were not sufficient to motivate them to participate directly in action. It is only recently after a general management programme we offered for the senior administrators of Rajasthan Education Department, the principals of the teachers' training institutions approached us for help in training their faculty who in turn would train headmasters. The new concepts and small innovations we introduced in our programmes attracted them. The Teachers' Training

College Principal took a very active part in seeking our collaboration and impressed by his enthusiasm my colleague Professor Udsi Pareek and I readily agreed to give a brief training programme for their trainers. The programme was a success as the resource persons immediately used the concepts in their training and we are now negotiating a project to redesign the teacher training curriculum and developing case materials on the basis of experiences in this project and other such innovations.

#### Our Latest Experiment

Work with organising tomato growers suffered a great set back last year with the scrop failure due to floods. But we wanted to pursue the activity. Agriculture experts who surveyed this area suggested us to try out three new varieties of tomatoes in this area that are draught resistant and that are likely to give better yield. By the time we could organise seeds of these varieties we were a month late. Therefore, we decided to try out the new varieties in some demonstration plots located in schools. We thought that if the demonstration plots located in schools and they come up well the school can use them to show to villagers, build curriculum and use it in adult education classes as well as in their curriculum. We also thought that if the teachers have to teach the villagers they themselves should have experience and running demonstration plots should help them gain such experiences. With this

orientation one of the schools with about 20 bhigae of unused land was selected for this experiment. The school spent about Rs. 1,500/- or so collected as work experience fund in fencing a part of the land, buying seeds, for irrigation, fertilizers, raising the nursery, and actual cultivation. New improved drought resistant varieties of tomato seeds from agricultural universities were obtained. Some agriculture experts wrote the curriculum and guided the teachers. The experiment was started with lot of enthusiasm we had a lot of hopes in using the as crop for building credibility of the school teachers with the village farmers, etc.

It is very painful to know that the whole crop failed because the water they used in that area was saline and the school had sunk all the money in this otherwise potential experiment. This raises several questions: what happens to the credibility of the teachers in the village? Will the school be ever able to do another such experiment again? Can the department contain such risks involved in innovations? What will be the morale of teachers, etc. Persistent efforts is the only answer. Probably if change has to occur one should be prepared to face many failures and still not give up.

### Some Issues

Doubts have been raised from time to time regarding the validity of treating action research as research. Some of these have been discussed in detail by Paroek\* (1977) and Agarwal (1977). As Paroek (1977) points out perhaps the main criticism against action research comes from those persons who occupy high positions of research and who think that research is the monopoly of the highly trained and well placed individuals who are acquainted with the technology of research. Such persons sometimes feel that research is vulgarised by its association with field practices. It has been argued in one critique on action research that the characteristics of scientific approach involved in research are not found in action research. Four such characteristics have been enumerated; going beyond the solution of the practical problems, in contrast to which action research is only concerned with the solution of practical problems; insistence on controlled experimentation, in contrast to which action research does not involve much of control leading to broader generalizations, in contrast to which action research has no validity outside a school or a situation; and setting of scientific experimentation against an existing body of generalisations in contrast to which action research does not have a chance to create a theoretical system (Hicks, 1954).

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\* For this discussion on issues in action research I have heavily borrowed from Paroek (1977).



Having described the experiments and experiences in linking education with rural development, I would now like to discuss a few of these issues relating to the research process. The basic question to be answered is — "is this an action research?" The components of any action research include the problem, exploring the problem, identifying the alternative ways of dealing with the problem, choosing one or more of the alternatives, involvement of the client, action aimed at change, observation of consequences of action and generalisations. All these steps are evident from the earlier discussion. The problems include poor enrollment in schools, high drop out rates, lack of interest of rural masses in education, lack of relevance of the school curriculum to rural needs and designing a non-formal education system that attempts to overcome the above weak spots. Explorations of the problems indicated certain amount of helplessness, stereotyped traditional mechanisms of thinking, strong role boundaries that do not allow innovations in the education system. Explorations indicated that there are no practical linkages between education and development. The experiments that were undertaken so far in this project aimed at experimenting with some mechanisms of building up linkages from the bottom, i.e., at the village and the block levels and also to show opportunities for teachers to innovate and to initiate and participate in the change process in education. The various process experiments we organised do indicate that rural development aiming at weaker sections is possible through use of local resources and support systems and process interventions from

the village and block level are not sufficient to mobilise education or development departments to initiate or participate in change process. The experience also indicated the effects of different process interventions on the change process.

The action research here is not yet completed. We now started working with the top administrators. It is too early to ask for a complete list of learnings and generalisations. We are hopeful that through a combination of structural and process interventions educational systems can be redesigned to facilitate rural development. A simultaneous work with all sub-systems in education (administrators, teachers, curriculum, teacher training, etc.) is likely to facilitate this process. However, our resources are limited and we have to begin somewhere.

At present several of the limitations that are pointed to action-researches seem to be applicable to our work also if we only examine what has happened so far. For example, as Cherns (1975) points out the limitations of action research include:

- i. The results being not generalizable beyond the field of study;
- ii. The outcome is not known in advance;
- iii. Design need to be completely changed and thrown out from time to time, thus no strict detailed planning possible;

- iv. Time of involvement is unpredictable;
- v. The field of experiment cannot be selected in proximity of the institution but has to be where the client is;
- vi. Action researchers get committed to action and there by to values but not to science which has no values. These are true with our project too.

As Pareek (1977) pointed out, the main role of action research is to maximise praxis the bond between theory and action. The criticisms of the traditional concepts and process of action research grow out of both the biases of the critics as well as lack of proper linkages between theory and practice, between research process and action process, and between the role of the researcher, and action role. Those involved in social action, like revolutionaries and architects of new social systems during and after revolution, intuitively use the process of research in their work. The process of research consists primarily in using a theoretical framework in the beginning to prepare a strategy of change, designing methods of testing to what extent change is achieved through attempted action, reviewing the action steps in the light of feedback received, and testing and reformulating the conceptual framework in the light of action results. This feedback loop (action-to-theory) strengthens praxis as much as the tactics-formulation (theory-to-action). While this may be done intuitively by a few visionaries and revolutionaries, the role of action research is to spread the use of research model (strategy formulation based on a conceptual framework which is

tested and, if necessary, adjusted in the light of the feedback received from action more widely by various persons concerned). We hope to perform this role through our efforts.

Pareek (1977) presented a three-dimensional model of action research. The three dimensions include: concern for action, concern for research and concern for people. If any action research has to be assessed on this model, one has to wait till the process is complete. However, action research projects go through different stages. In the beginning there should be a high concern for research. As work progresses, there could be a shift towards more emphasis on action and ultimately by the time of the closure of the project there should be a high emphasis on research again than on action. The concern for people should remain high all through out the exercise as all change is directed to help people. One has to be clear about his target groups. If any one of these concerns take an unwarranted attention of the researcher, there is danger of his ceasing to be a researcher and becoming an activist, missionary or Don Quixote. Some times outsiders are too impatient to let the action researcher take his own process and brand him to be one of these. Sometimes when the researcher enjoys one of these roles he may get fixated/and find /there it difficult to get out.

Researches on change may be conceived as historical, diagnostic, predictive and experimental. Historical studies analyse the past and trace the changes that have occurred in the past and identify causes. The researcher has no control over events and learnings depend upon the extent to which events in the past are varied. Diagnostic researchers may aim at identifying opportunity, strategies, structures, processes, etc. existing at the time of study and then to identify opportunities for change. While diagnostic studies are necessary, they are not sufficient for change. Predictive studies aim at forecasting the change processes on the basis of the available knowledge of events and change processes. Experimental researches actually experiment with change process through controlled experimentation. Action researchers actually participate in the change process. Action researches is experimental. They initiate or help the client system initiate change processes and study them. A good action researcher can use all the four types of researches. Historians are associated generally with the historical studies, economists with predictive studies, sociologists and psychologists with diagnostic studies and behavioural scientists and management scientists with experimental and action researches.

The recent ICSSR surveys of researches in social sciences indicate a complete imbalance of researches in terms of their type. For example, in psychology which is one of the fairly well developed and scientifically based disciplines the researchers are mostly

surveys and experiments giving no indication of any impact on society or organizations and no indication of much advancement of our understanding of human behaviour. The researchers are so obsolete that a critique <sup>titled</sup> ~~little~~ his review of ICSSR's survey as "Psychology or Adaptology?" It is a pity that even today a few doctoral students and their guides in universities are busy to prove meaningful material can be learnt easily than nonsense material using memory drums and CVC trigrams. Survey researches and theoretical contributions of social scientists are likely to contribute very little to our understanding and development of society unless the client system <sup>who are willing to read the contributions</sup> tries out. There are very few organizations <sup>of our social scientists,</sup> what to talk of implementing. In a recent experience I had with a medical college I undertook to survey the organizational environment with the understanding that the Principal of that college would use the results of the survey to look at the organizational processes and student systems. The project was sponsored by ICSSR, the college was selected after the Principal indicated his willingness to use the results. After the survey was completed the Principal showed no interest whatsoever even to have a presentation or discussion of the findings organised. Our experiences of pure survey researchers consistently indicated that these researchers generally does nothing more beyond creating employment for a few research staff. On the contrary, whenever we used action-researches there were satisfying experiences. What is more the client is directly involved, you can see the change occurring and one can learn from these. These experiences are consistent in changing teacher behaviour (Pareek and Rao 1971)

entrepreneurship development (Chattopadhyay 1978), using welfare officers as agents of change (Verma and Rao, 1977), testing the different methodologies of interacting with villagers for family planning work (Rao, 1977), and in the present experiment. Management offers ample opportunities for action research particularly because the scientists are geared towards trying out new things and client systems are more positive to them. Management scientists should use this opportunity in the next few years.

A last point I would like to raise for action researchers of this type is the institutional base for such researchers. With increased emphasis on rural development from all sectors, institutions of higher education cannot escape from involving themselves in studies of change and facilitating change. Cherns (1975) briefly touched on this issue. He feels that a university is an uncomfortable base for action research as the universities are comfortable with value free science but not with value loaded action. He suggests "boundary institutions" — institutions committed to the world of science and learning as well as world of action. In our country fortunately most of the professional institutions are generally committed to science, learning and action. These include medical colleges, management schools, engineering colleges, agriculture universities, schools of education, architecture, design, social work, etc. These institutions should get more and more involved in action research projects in rural areas. Meanwhile

universities probably should also become such "boundary institutions" as otherwise they will continue to lose their relevance to development.

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## Appendix I

A Points emerged from our discussions with Joint Director of Education, Jaipur

1. His administrative functions include mainly the appointment and transfer of teachers. His academic responsibilities include the control of examination results; guidance to the headmasters forum, managing school complexes (school complex concept is an educational innovation in which schools with facilities help group of other schools through supervision and guidance); institutional planning and state administration (every school is supposed to plan their activities annually and submit to department); upgrading schools and managing other schools, etc.
2. When he goes on inspection to schools he stays for at least two days at every school and he is supposed to do this compulsorily. He has a minimum requirement tour of 10 days in a month. When he goes on tour he observes and provides guideline to the respective schools on dimensions like school atmosphere discipline, headmaster's work, demonstration lessons, correction work, office records, play grounds, etc.
3. He also provides guidance for his Deputy Directors and other officers and gives guest lectures in training institutions. He also provides academic guidance for science teachers through seminars and participates in the improvement of curriculum, text books designing programmes.
4. The main problems he stated to have been facing include not being able to devote academic work as he is mostly pre-occupied with administrative problems,

and wastage of time in transfers.

5. He also expressed his opinion that the training colleges educate people only for degree and the teachers do not practice what they learn there.
6. He agreed that there should be some way of encouraging competent teachers and probably the private management would do better in achieving this task.

Points emerged from discussions with two District Education Officers at Jaipur

1. There are 17 panchayat samithies under Jaipur and the Panchayats have control over primary school in rural areas. Each Panchayat samithi has one or two extension education officers depending upon the size of the samithi. The salary of the extension education officers (EEO) is paid by the samithi. The E.E.O. has at a time appointed for five years. But he can be posted as long as the Samithi wants.
2. The E.E.O. has purely academic role to perform. BDO of the Samithi controls E.E.O. The responsibility of EEOs is to help the school prepare its institutional plans. The EEOs meet the primary school teachers at their pay centres, and he is supposed to discuss with them the academic matters. However, teachers do not care for him as he does not have any administrative control over them.
3. The EEOs are often involved in the developmental work at the instance of the BDOs. The headmasters of EEO is the local block head quarters and is directly under the control of BDO. He is expected to visit and supervise the schools at least for 10 days in a month. But he does not do that because the other work given to him exhausts his time. Political backing of teachers by the Panchayat also makes him ineffective as teachers do not care for him. Standing committee often overlooks the recommendations of the EEOs and therefore their suggestions and complaints

become ineffective.

4. Rural primary schools are not taken care of well and the facilities given to them are not being utilised properly for the purposes. Primary school teachers are carefree and do not have any fear at all. If they are placed under the direct control of the department, DEOs will be able to control them.
5. The DEOs also expressed their concern about political interference in their dealings with the primary school teachers. The D.E.O. supervises only a limited percentage of schools. Senior Deputy D.E.O is required to supervise the DEOs and guide them in primary schools.
6. They felt that teachers are generally posted near their residences, and they look after their personal work.
7. The DEOs stated that they can appoint primary teachers, clerks, etc, and transfer people at these levels. The DEOs also takes part in final inspection.
8. They felt that teachers require refresher courses.
9. Their observations during supervision covers areas such as physical facilities of schools, maintenance of records, class work, co-curricular activities, physical education, etc. A formal report by them is sent.
10. The DEO is burdened with duties such additional administrative duties. Therefore, he is not able to give guidance to institutions. Academic work gets very little attention because of the administrative work.
11. The heaviest part of the administrative work is taken away by transfers.

C Points emerged in the meeting with Deputy D.E.Os.

1. Non-formal education started in December 1974. There are 30 centres in six districts of Rajasthan. Jaipur is one of them. There are 20 centres in Jaipur. 100 more centres are expected to be started that year.

2. The non-formal centres impart education to boys and girls who are not educated. Education is imparted to them after the school hours and the syllabus is different. The syllabus aims at providing functional literacy. Mostly working children are learners in the nonformal centres.
3. The syllabus is condensed version of that which is given for 5 to 10 age group. However the age group of the participants is 18 to 25. They are trained in about 3 years, through nonformal education and are prepared to be qualified for 5th standard.
4. The approach in teaching techniques in nonformal education is based on local needs and they are supervised by the BDOs. Teachers in the formal system and social workers participated in educating the people in nonformal centres.
5. Part time supervisors are paid extra and are appointed to supervise the non-formal centers. These part time supervisors generally are EEOs, or headmasters of schools. The supervisors are not expected to go to centres as inspector but go there to help and guide them.
6. Ajmer Adult Education or Lok Shikshak Samathan manages some of the programmes.
7. In these non-formal centres materials are supplied free.
8. The syllabus is framed for these centres by SIE, and Dy. Director of Elementary Education. The Dy. DEOs form a group and adopt the syllabus on the basis of local needs. In the State Institute of Education, the Principal of Training College was in the process of preparing new syllabus.
9. There are problems for the learners in terms of time. They are generally not regular and their attendance is very poor in the months of March, April, July where they are working in the fields.

10. The learners are generally enthusiastic. They are specially motivated by the fact that they could join the formal education after they complete this.
11. Since funds are not released in time some teachers are not able to do justice to non-formal education in terms of developing teaching material, etc. Panchayat could give loans for non-formal education and they are reimbursed whenever they do that.
12. One problem that has come up with the non-formal centres is that the boys going to the formal schools dropped out from the formal school and started entering in the non-formal schools.
13. Non-formal education system creates competition with formal system. Such competition is going to make formal education less effective. This is something which is to be checked. The nonformal schools should work more as information centres in course of time.
14. In the formal system teacher is under the control of Samithi and not under EEO. Panchayat and Zilla Parishad Selection Commission selects the rural primary school teachers. It acts for the entire state. There are no representatives of the district or of the panchayat in the service commission.
15. Selecting of untrained teachers creates problems later on.
16. Teachers having high qualification but working in Samithi schools want to move to directorate as they are struck in samithi system. Teaching is secondary for most of the teachers of schools run by the samithi. Lack of interest is highly prevalent in primary school teachers. The schools are not well equipped. There is lack of academic awareness and no desire to grow professionally.
17. Panel inspection and Farmers' Functional Literacy Programme are also in operation in the state.

D Points emerged during the meeting of the Education Systems Unit with Headmasters at Ajmer

At this meeting we talked to headmasters of different schools in Ajmer district. The following are some of the common remarks made by the headmasters:

1. Most of the schools in the district are government schools. Regimentation is existent in all schools, but specially more in the government schools. Government schools cannot do what they want to do because of bureaucracy.
2. Some of them do innovate in their little way but not much as there is not enough money available. There are no grants for any facilities. Whatever experiments are possible, they are done with the skeleton staff.
3. Education is examination oriented, teaching and learning is the most vulnerable field and it is the source of all troubles. The examinationsystem harms initiative.
4. Training provided in teacher training institutions does not help as the teachers get sucked into the examination centered system.
5. Both students and teachers attempt shortcuts.
6. They felt that internal examination is probably the best. Training colleges waste the time. They go there late and come back in the same state as they went.
7. Teachers are talented but circumstances spoil them.
8. Heads of institutions do not have power to reward and encourage the teachers.
9. Appraisal system does not help headmasters to know their strengths and weaknesses.
10. Not all schools are capable of adopting innovations. They suggested that some schools should become model centres.



11. Text books are same for good and weak students. Some system has to be worked out in order to take care of this.
12. They are forced to give 90 per cent results upto 8th standard. This creates problems in the 9th standard. Many fail in this class.
13. The headmasters wanted to know how they can motivate the teachers to teach. They felt that private schools are better because of the teachers' fear of losing their jobs. They felt that private schools take maximum work and the work load in such schools is high.
14. Combination of subjects in many schools is very low. Some times teachers for some subjects are not recruited and positions are kept vacant.
15. Director of Education visits schools once in about three years.
16. They felt that panel inspection is good.
17. They also felt that work experience is doing well.
18. They wanted more autonomy to appoint teachers.

By and large the research team felt that there is a sense of helplessness and powerlessness among the headmasters. They are not able to see their autonomy. They are not able to think anything else other than the problems of the school. Most of their worries appear to have been centred around hygiene factors rather than on the motivators. Their sense of powerlessness is high and probably by training them on some of these aspects and helping them to see opportunities would contribute great deal. They appear to be very talented and very resourceful but they lacked encouragement and ability to see alternatives and opportunities

Points that emerged from our meeting with Inspectors of Schools of Ajmer District

1. There is an adult education association which is taking interest in the education on adults.

2. Two shift schools bring down standards.
3. Buildings of the school are rented. These are small rooms and the students cannot even sit properly.
4. Recruitment of teachers is very poorly done. The teachers do not have aptitude, they are very young and are college going, they lack maturity, behave like children and they don't have psychological background.
5. Teachers in rural areas are not adjusted, and they would want to go back to urban areas.
6. They should be trained to work in rural areas. Urban teachers are engaged in other jobs like selling, marketing, arranging shops, etc. They undertake part-time jobs. For example, in Beawar 70 per cent of teachers are engaged in other jobs. Eighty per cent of the rural teachers are engaged in agricultural work.
7. As a result of the influence of political leaders, even schools are opened on political grounds more often.
8. Teachers in rural areas have multiple responsibilities other than teaching. For example, they have to do family planning work, national savings, census, etc.
9. Since most of the schools are single teacher schools, it is difficult to organise anything.
10. Panchayat Samithies do not want some schools. Samithies do not take interest in managing these schools because they see them as the property of somebody else. They run them because government pays the salary.
11. Village Sarpanchs want to recruit their own people to work in schools.
12. The Extension Education Officers do not have any say in the affairs of the school.
13. They are not allowed to spend more than 5 to 6 days in a month for inspection work.
14. No transfer takes place without a political ground.

15. There is no initiative on the part of the teachers, but they do listen to advices.
16. Most of them retire as primary school teachers only, so there is no motivation.
17. It may be good to have a separate cadre for the primary schools.
18. Senior Dy. Inspector in urban areas is better than Education Extension Officer because Dy. Inspector or D.E.O. listen to any suggestions and he can effect transfers.
19. Teachers of urban primary schools are more motivated than those in rural areas. This is because they can be rewarded and sent to better schools.
20. It is very common for Samithi teachers to apply to department schools. They apply but they go only if the place where they are posted is convenient to them.
21. Block Development Officer's orientation should be changed. He should become more supportive and help Education Extension Officer do education work.
22. In each block the number of schools are too many to handle in 120 days.

## Appendix 2

Observations on the Primary Education System and its linkages during our visits to four blocks in Ajmer District

1. Villagers have been found to be quite unconcerned about the education system. Samithi presiden s visit some of the schools once in a while whenever there are problems. There are villages where the Samithi office is next door to the school but there is no communication between the two sub-systems.
2. Our visits to schools indicated that a few headmasters and teachers do put in efforts to do things beyond the formal curriculum (e.g., developing kitchen gardens, etc.) but with practically no impact perceived by the community.
3. The RD.Os generally have agriculture background and in most villages agriculture is a dominant occupation. However, very little about agriculture is taught in the schools;
4. EEOs are used for family planning, small savings, and pay distribution.
5. Our meetings with Sarpanchas of some of the blocks revealed that they wanted agriculture and such other occupation related matters to be taught in the schools. There is a lot of poverty in some of the areas and draught once in three years. Most children have to look after cattle and have no time to go to school. The village leaders suggested that young people should be used in non-formal centers rather than retired teachers. In some villages we were told that teachers participate in village politics and even teach the children which they did not like.
6. A general opinion was expressed by several village leaders met that in some blocks although there are good residential

facilities for teachers, they prefer to stay in towns. This prevents them from any active participation in the community. They were more happy about teachers who stay in the villages.

7. In some of the schools the attendance was as low as 20 per cent.
8. We were also told in some blocks that most of the teachers in rural schools are involved in other income earning activities.
9. A consistent general feeling was expressed by most people we met that the present day education and curriculum are aimless and irrelevant to people. They get nothing out of it and it wastes children's productive time and also spoils them with high class habits.
10. In one of the blocks (Jawaja) the leaders suggested that the problems of villagers should be studied by the teachers.
11. They also suggested that work experience should be organised and improved agricultural practices should be taught. In villages where there are very good resources and economic activities the education system has been quite apathetic and has not made any efforts to use these activities in teaching. For example in one block there were lot of quartz rocks and in another block the block had its own farm and they earned money from selling animal bones.
12. In the meeting of all the EEOs of the district they made the following suggestions and comments:
  - i Education should not be with the Panchayat Samithi.
  - ii Teachers should not be employed in their own villages.
  - iii Standards of education have fallen in the past and the EEOs cannot bring any change as teachers do not listen to them.
  - iv They felt that they are being used by the BDO for all jobs while his own VLUs rest a lot and have no work. Even when the VLUs are less educated, BDO trusts them more and depends on them more than on EEOs.

v Panchayats do not take interest in schools and agricultural inputs need to be included in the curriculum and skilled workers from the village should be used for teaching in schools.

13. In another meeting we had with the Dy. Education Officers of the district the following were pointed out.

- i When asked about the question of allocating some funds to the primary school teachers to help them undertake innovative activities they stated that the primary school teachers would not take any responsibility of spending funds. They felt that he does not know how to maintain accounts.
- ii There is no freedom in changing the content of teaching in the schools and there is already a syllabus overload. They wanted more autonomy for the teachers.
- iii They stated that as headmasters they used to be very angry the way the inspectors used to behave and therefore are more empathetic now to HMs.
- iv In schools where there is mid-day meal programme the students come for food only at the time of serving food and not for learning.

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Appendix 3

A summary of initial discussions about the role of the IIMA team in Ajmer District

After we have decided to work intensively with Jawaja Block, we felt that our spending entire time on this block would mean very narrow pattern of working and we would not be doing much for the entire district of Ajmer which we had selected as our experimental district. Therefore, we wanted to do some large scale experiments with the whole district of Ajmer. We found from our experience in this district that the BDO is the weakest link in the whole system. Therefore, we felt that we need to tackle the BDO first before we can think of initiating any changes. We felt that we also then need to tackle the headmasters and the EEOs simultaneously in the second phase. We also felt that in whatever changes we initiate we need to train local resources and associate them with the whole process of managing change. We thought that this is necessary because we need some one to ensure continuity of changes that are brought in and we also need people who can take the experience of working in this district to other places. With these ideas and the background we thought that there can be a three phased training or action programme. In the first phase we proposed to deal with the BDOs and the inspectors simultaneously. In the second phase we deal with EEOs and BDOs together. And in the third phase we deal with headmasters and EEOs together. We also wanted to collect more information about people, about resource people, in the block and associating them from the beginning. This would help again ensuring continuity in the respective villages. Thus in this district for doing any other activities we felt the following steps are necessary.

1. Collect more information on BDU's and EEO's.
2. Design a programme for BDU and Inspectors, EEOs and headmasters on this basis.
3. Develop resources in the district to sustain this development and change to be introduced in that area.
4. Follow up at institutional level, plans for schools, choosing some schools and carry out action plans.
5. Use some schools as models and distribution centres.
6. when we have a reasonably good numbers of schools bring other districts in picture through Collectors, BDUs, Headmasters, etc. Bring resource people and attempt to develop resources.
7. Use informal systems like the Headmasters' Association as change agents.
8. Raise questions on the reward system, etc. and then suggest structural changes on the basis of experiences available from conducting such training programmes.
9. Organise some role redesigning at later stages.

Thus we thought in this meeting at Ajmer district we can slowly introduce change in the education system by concentrating purely on the process level and strengthening the teachers, extension education officers, BDUs and others and through strengthening the role linkages between these different categories of this people. However, as later experiences indicated we had to deviate a bit from our plans.