TRAINING THE DIET FACULTY OF KARNATAKA STATE
IN CONDUCTING

ACTION RESEARCH

SPONSORED BY DPEP KARNATAKA

REPORT

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FOREWORD

Kurt Lewin, the Father of Action Research, developed this concept as far back as 1946. Since then this idea has been lying rather low in the arena of Indian Education. Of late, it seems to have picked up some momentum and the District Primary Education Programme (DPEP), Karnataka, decided upon Action Research as one of the interventions that may be attempted to achieve the set goals of primary education. It has sought academic inputs from the Regional Institute of Education, Mysore (RIEM), to train a few key resource persons from each District Institute of Education and Training (DIET). These key resource persons, in turn, are expected to impart training to primary school teachers of their district in a phased manner.

The training of the DIET faculty in Action Research took place from 3rd Aug. 1998 to 6th Nov. 1998. This is a report of the entire training programme. 'The Training at a Glance' says in a nutshell how exactly the training was imparted. The section of 'Conceptualisation' contains two papers on Action Research, which form the pivot for this training programme. The next section spells out the session-wise/day-wise transactions that took place at RIEM. The modus operandi is laid bare.

The inspiration of the resource persons and the perspiration of the DIET faculty have culminated in sixteen action researches. The abridged reports of these researches form the substance of the section on 'Production'. 'Evaluation' is encouraging, in the sense, over all, the majority of the participants have rated the training programme as very good or as good. There is a unanimous opinion that the objectives of the programme have been attained and that the DIET faculty could effectively adopt the package for conducting training programmes.

The contents of the annexure, viz., the questionnaire, time schedules, guidelines for fieldwork, the various formats, posters and transparencies, speak for the meticulous and exhaustive planning, preparation and conduct of the programme. No wonder, the resource team and the programme have earned accolades from the experts, officials, participants and others.

With the untiring efforts of the DPEP and the DIETs, the idea of Action Research is sure to catch on and improve the quality of primary education in the foreseeable future.

Dr.S.N.Prasad
Principal

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Acknowledgements

I am thankful to Smt.Anita Kaul, State Project Director, DPEP, Karnataka, for entrusting us this challenging assignment and Sri.M.V.Parthasarathy Raju, Special Programme Officer, DPEP, for his constant support.

I am grateful to Dr. S.N.Prasad, Principal, RIEM for his official support and encouragement. Prof. P.R.Nayar and Prof.K.K.Vasishtha were our guiding force and gave us all the academic and moral support to discharge our responsibility. I am extremely thankful to them for their incessant encouragement and guidance.

The Principals of the DIETs, DDPIs, Members of the DIET faculty, BEOs, AEOs, Heads of the Primary schools, collaborating teachers, and students of the selected schools of the ten districts, without whom the programme could not have been a reality, deserve special mention.

All the Departments, the Computer Lab and the Library of RIEM deserve my thanks for their timely help through out the programme.

This report, the training package and other supplementary materials are the products of some extraordinary efforts and initiative on the part of Smt.B.Sarada, ably supported by the other members of the Resource Team. Because of severe time constraint they had to work incessantly, unmindful of the time and their own personal problems. It would have been impossible to complete this work without the contribution of each member of the team. My profound thanks to each and every member of my team for their deep concern, encouragement and moral support during the work and for sharing the moments of joy, pressure, frustration, disappointments and success in this work.

A.S.N.Rao Sindhe
Programme Coordinator

CONTENT

THE PROGRAMME AT A GLANCE

Introduction:

Action Research is a form of self-reflective, scientific enquiry undertaken by practitioners in their immediate situations in order to improve their own practices. Research is used to evaluate action and action provides an experimental situation for research. It is not research in the traditional sense of the word, as it has nothing to do with lab coats, number crunching or objectivity. This type of research is of immense value to the classroom teachers, as it aims at improving educational practices and providing 'local solutions to local problems'. Our primary school teachers have to be trained to take up action research. As a prelude to this, it was essential that the faculty of District Institute of Education and Training (DIET), in charge of training the teachers, be given a very thorough understanding and practical experience of action research. In this connection, the State Project Director, District Primary Education Programme (DPEP), Karnataka, requested the Regional Institute of Education, Mysore (RIEM of National Council for Educational Research and Training [NCERT]) for academic support in May 1998.

Objectives:

1. To help the DIET faculty develop a clear concept of action research.
2. To develop professional competence in them to conduct action research.

The Team:

Ever since the idea of the training programme was sown, the resource team had been engaging itself informally in planning and preparing for the same. The team comprises of the Programme Coordinator, Dr.A.S.N.Rao Sindhe and eight other resource persons drawn from the various departments of RIEM and outside. The team was guided by an advisory body comprising Dr.S.N.Prasad, Principal and Dr.K.K.Vasishtha, Dean (both from RIEM) and Dr.P.R.Nayar, Emeritus Professor of the University of Mysore.

Resource Persons' Workshop:

The first formal meeting of the resource persons and the advisory body took place on 21st and 22nd July 1998. The concept and the process of Action Research

were discussed in detail. Next, the Programme Coordinator presented an elaborate plan of action of the project. To make the discussion on the plan of the programme concrete, the Programme Coordinator supplied each member with a draft of the training package and a draft of the phase-wise time schedules. The team members thoroughly analysed the drafts, discussed at length and finalised the activities to be undertaken in each phase of the training programme and the materials to be included in the training package. The various responsibilities of organising and conducting the programme got distributed among the members.

The Training Package:

Based on the suggestions at the Resource Persons' Workshop, the training package draft was suitably modified and thus the final version was brought out. This package has four divisions. In the first division, 'Experts' View', Dr.P.R.Nayar has analysed the concept and process of action research; and Dr.K.K.Vasishtha has enumerated the issues and problems of primary education. The 'Team's Approach', the second division, spells out each move of action research in some detail. As the computer may be put to use to feed and analyse the data, there are brief introductory accounts on Windows, Word and Excel, along with some suggested activities for hands on experience. A few action research reports and their abridged versions as well as brief accounts of the classroom activities of teachers (in the spirit of action research) form the contents of the third section, viz., 'Practitioners' Quest'. The fourth and last section contains the questionnaire, activity sheet, session report blank and an English to Kannada glossary. This training package is very useful for anyone who wants to take up action research. It may also be mentioned here that based on the experiences in the current training programme, the team is already in the process of revising the package for future use.

The Target Group:

It was planned to train three faculty members from each of the eleven DIETs of the DPEP districts. But only 26 on the whole turned up for the orientation programme. Of these participants, 50% was above 45 years in age; 1/3 of them were females; nearly 50% had more than 20 years of teaching experience; but less than 30% had the experience of teaching at the primary school level. It may be borne in mind that they have to train the primary school teachers in solving their problems through action research.

The Design:

The training programme was designed in such a way that the participants would be working at two levels - 1) RIEM and 2) DIET. They attended four workshops at the RIEM when they received theoretical inputs on all aspects of action research and practical training in formulating research proposals, preparing tools for collection of data, analysing and interpreting the data, writing and presenting the research reports and sharing their experiences, in addition to hands on experience in computers. These spells of 'research' were interspersed with spells of 'action' at the DIET level when the participants analysed the classroom problems and conducted the action research in the classrooms in collaboration with the primary school teachers.

Orientation Programme:

The Principal, RIEM, inaugurated the programme on 3.8.98 and released the training package. Every participant, resource person and advisory board member received a copy of the training package and an abridged Kannada version of the same. The Programme Coordinator explained the plan of action.

During the five days of the orientation programme, there were lectures by experts on the concept and process of action research, problems and issues in primary education and computers in action research; on the different moves of action research, viz., Look, Plan, Act & Observe and Reflect by the resource persons. These lectures were enriched with OHP and LCD presentations. There were also posters on the role of DIETs in action research, action research spiral, etc. Four practitioners presented the action researches carried out by them.

On the first day, the participants were requested to fill up a questionnaire (vide annexure) soliciting relevant information from them. The faculty members of each DIET started working in a group under the supervision of a resource person. They had to identify and prioritise the problems faced by the primary school teachers. They had to write the propopsal for two activities in the given format (vide annexure/formats). There were three presentations from each DIET: a) statement of two selected problems, b) proposal of activity 1 and c) proposal of activity 2. Group work and feedback sessions were the hallmarks of the entire training programme.

The programme ended with a wrap up session on 7.8.98. The panelists highlighted the tasks to be performed by the participants when they went back to the DIETs. A checklist (vide annexure/guidelines for fieldwork) of activities to be carried out at the DIET level and the materials to be brought for the next workshop was provided to each group. The Senior Programme Officer (SPO), DPEP, clarified the points raised by the participants regarding administrative matters.

Phase I - Level 2:

During the period 11th to 13th August 1998, the participants met six primary school teachers in their own DIETs. They oriented the teachers to the current programme and to action research. The teachers were asked to list out their classroom problems and prioritise them. The six teachers were divided into two groups of three each to work on the two selected problems. Each group wrote the research proposal for one activity in the given format. Finally action researches were carried out only on these problems selected by the classroom teachers (and not on those selected by the DIET faculty as samples in the orientation programme).

Workshop I:

This workshop lasted for five days, from 18th to 22nd August 1998. Both the faculty members from Kolar DIET and one from Bellary did not turn up, bringing down the number of participants to 23. There were lectures to orient the participants to the task of tool development and the fieldwork. A supplement to the training package containing three activity sheets B, C and T (vide annexure/formats) was handed over to the participants. There was group work to develop the tools. The participants gained hands on experience in computers and acquired basic skills in handling Windows, MS Word and MS Excel. In this workshop also, there were three presentations from each DIET: a) proposal of activity 1, b) proposal of activity 2 and c) presentation of activity sheet B; which pertained to the tools, recording procedure and time schedule for their action research. T sheet was meant for the use of each collaborating teacher for recording daily action and observation during the three weeks of implementation of the action research. C sheet was meant for the use of the DIET faculty. They were expected to enter the details of the three schools involved in the action research and also the consolidated account of the action taken and the observations made in the three schools week-wise.

An additional feature of this workshop was that the DIET faculty got the experience in preparing the session reports (vide annexure/formats). At the end of the last day, there was a wrap up session regarding the course of action to be followed by the DIET faculty in the next 35 days. For this purpose a checklist 'In the field' (vide annexure/guidelines for fieldwork) was given to the participants. At this stage sixteen action researches in all were finalised for execution.

Phase II - Level 2:

This phase of 35 days (26.8.98 - 29.9.98) was the most crucial period in the entire training programme, as this was the period when there were interventions in the actual classroom practices. Each action research was implemented in three schools simultaneously by the collaborating teachers. The actual implementation lasted for eighteen days. At the end of each week the collaborating teachers met the DIET faculty and appraised them of the actions taken. The teachers filled up the T sheets and the DIET faculty, the C sheets.

It was learnt that the students were very happy with the interventions. The Heads of the institutions also appreciated the change in action. Teachers began to see the usefulness of action research. The DIET faculty did the data entry.

Workshop II:

This workshop commenced on 6.10.98 and lasted for ten days. There were lectures by experts on analysis and interpretation and also on report writing. Maximum time was devoted for writing the reports and the abridged versions (vide annexure/formats) under the guidance of the resource persons. Tables and graphs were included in the reports. Simple statistical analysis involving mean, percentage and gain percentage was carried out in order to assess the impact of the interventions. The participants presented the reports and refined them based on the feedback.

The library services were hired from the RIEM and relevant books, journals and other related study materials required for report writing were made available in the workshop venue on all the ten days. The computer facilities were also extended to the participants for the purpose of analysing the data and writing the reports.

On the last day, there was a brainstorming session on the ways and means of effective dissemination of the work done. The SPO, DPEP, gave his suggestions for organising the dissemination programme effectively. As usual, the day ended with a wrap up session. A meeting of the resource persons and the SPO, DPEP was held to finalize the agenda for the Sharing Workshop.

Phase III - Level 2:

In the last week of October, the DIET faculty got the reports finalised, typed and bound. They also organised a sharing workshop for which the other members of the DIET, CRC and BRC personnel and collaborating teachers were invited.

Sharing Workshop:

The fourth and final workshop at RIEM lasted for three days from 4.11.98. One of the faculty members from Mandya DIET could not attend the function. The Principals of five DIETs and the collaborating teachers from two districts also participated in this workshop.

The booklet containing the abridged versions of all the sixteen action researches was released. The DIET faculty presented their action researches, some of them making use of the OHP. These sessions were chaired by the Principals of the DIETs. The participants expressed the views and opinions of their collaborating teachers. They were also requested to fill in a questionnaire on the evaluation of the training programme (vide annexure/formats).

On the second day, there was an exhibition of the aids used in the action researches. Also on the first two days of this workshop, the participants did the compering. On the forenoon of the last day, there was an exclusive session between the SPO, DPEP and the DIET personnel to plan the future course of action for effective dissemination of the concept of action research and training the primary school teachers of the State.

The programme ended with a formal valedictory function. While calling this the longest, well thought out and most substantive training programme, the experts

gave their valuable suggestions for further improvement. Two of the participants presented the poems in Kannada on action research composed by them.

Analysis:

Of the sixteen action researches conducted, eight are in Kannada, five in EVS and three in mathematics. Three studies are related to class I, another three to class II, eight to class III and two to class IV. Improving the skills of primary school students in reading, writing, handwriting, computation, observation and classification has been the concern of these researches. There are studies on homework and activity based teaching also. The improvement in the performance of the students due to the interventions ranges from 4% to 43%, as revealed by statistical analysis. Of greater significance are the participation, interest and enthusiasm generated by these interventions among the students, teachers, Heads of the institutions and the DIET faculty.

Evaluation:

The training programme as a whole has been rated as very good or good by the majority of the participants. There is unanimous opinion from the participants that the course objectives had been attained and that they could effectively adopt the package for conducting programmes. The programme has instilled confidence in the DIET faculty to train others in action research. It has generated interest among the teachers in action research.

The training programme has led to the production of valuable materials - a training package, an abridged Kannada version of the same, a booklet containing the abridged versions of the sixteen action researches and the report of the training programme at the RIEM level and the reports (full version) of the action researches at the DIET level.

Conclusion:

This programme has been unique in more than one respect - the duration, two level design exposing both the DIET faculty and the primary school teachers simultaneously to action research, in-built feedback, production of highly useful technical materials, intangible results in the form of change in attitude in many people and the team effort. Evaluation by the participants reveals beyond doubt that the

objectives of the programme have been achieved. Anyway, this is only a humble and sincere beginning on the road to improvement in the quality of teaching and learning at the primary school level in the **light of action research**!

Conceptualisation

ACTION RESEARCH - A CONCEPT

Prof. Nayar. P.R.

Concept

The concept of Action Research was developed in the late forties; it has changed and evolved to some extent since. It does not make sophisticated or technically rigorous research – basic or applied; still it is functionally relevant, productive and useful. It doesn't aim at theory formulation or validation; still it utilizes good observations and sound principles in order to design, evolve, systematically try out, prove and stabilize good features, practices and sub-systems. It doesn't attempt to make generalizations or findings with universality; it is rather concerned with the immediate set up, group, concerns and problems. It is a sort of micro-experimental research; it is narrowly delineated in space, time, focus and thrust. No population is covered/studied; so, no sample is taken. The concern here is one's own situation and specific problems felt therein – difficulties, deficiencies and defects. It is situation specific, but not as extensive or intensive as naturalist inquiry. More importantly, Action Research

- Aims at improving things in the given context;
- Signifies change, innovation and betterment;
- Seeks to solve felt problems and/or try out and test promising ideas, solutions, innovations, etc.;
- Tests purposefully planned and promising programmes of action;
- Reflects professional competence, commitment and growth;
- Shows readiness – even urge – to change things for the better and accept the challenge thereof;
- Implies systematic experimentation (though with limited controls, comparisons and a weak design);
- Establishes practicality and productivity with conviction and throws up superior alternatives;
- Makes for adoption, stabilization and popularization of better features, practices, system components, etc.

Though Action Research focuses on 'local solutions to local problems,' its findings may be relevant to and useful for similar situations elsewhere. It may be undertaken by individual, teams or even on a collaborative basis involving different persons/teams in different places; in the latter case suitable modifications or variations are not only

permissible but necessary. Further, analysis of data, formulation of findings, etc., may be done separately. Again, the focus may be on one's own specific classroom problems, overall institutional problems/concerns or even more general concerns/problems – but they have to be identified and specified (pin pointed and clearly defined) before designing and conducting Action Research.

Concerns and problems: *Identification and Analysis*

The concern may be with any aspect or component of the system – its strengthening or improvement. A problem is a felt difficulty or dissatisfaction; it may imply a deficiency, defect or weakness of any other kind. One area of concern has to be selected and the specific problems/features identified, defined and prioritized. The focus may be on one specific problem or even a few which are intimately related and go together. They may be academic or non-academic in nature. They have then to be examined and analysed in order to identify the probable causative or contributory factors and other contextual factors of relevance, apart from the symptomatic features. To solve a problem, it may have to be tackled not only at the symptom level, but also at the root level. Ideas or points for change or solutions may emerge from them and have to be related to them. The sources for such ideas may be one's own background and thinking, observations around, discussion, reading and other kinds of 'searches'. The ideas or points that come up have to be critically examined or evaluated and judged on their merits – promise or possible productivity, practicality, possible difficulties in implementation and ways of overcoming them, etc; lateral, critical and constructive thinking would be involved in this.

Action strategies/hypotheses: *Formulation*

It is important to define basic assumptions or position (if any) and also the basic approach to be adopted in solving the selected problem(s) or testing the innovation concerned. Clear strategies, with specific tactics and techniques may emerge from them and in any case have to be matched with them. The latter also have to be clearly formulated as strategy statements (principles and lines of action) or as research questions or action hypotheses (on their productivity). Often, a multi-pronged approach, multiple-strategy or set of action-lines may be adopted rather than a single strategy or

line of action. Intelligence, imagination, professional sense, resourcefulness, innovation and creativity would come into play at this stage and the next. (But it is no shame to accept good 'models' and replicate, imitate and emulate; better to adopt models to one's conditions and needs before adopting them.)

Both the 'outcome variables' (intended effects or products) and the 'process variables' (components, features) would be explicitly mentioned or at least clearly implied in these formulations.

Action Programme: *Designing and Planning*

This phase consists of

- Defining the beneficiaries/target groups, participants, etc;
- Defining the basic principles to be followed and precautions (if any) to be taken;
- Re-defining the action strategies and elaborating the specific tactics and techniques to the extent necessary;
- Selecting and defining the action lines, components, and features (other than the above);
- Identifying and listing/defining specific activities to the extent necessary;
- Sequencing specific components/activities and scheduling them appropriately;
- Structuring (inter-relating or linking) different lines / components / activities;
- Identifying the support materials and preparatory exercises for each component/major activity, and
- Relating them to the sequences/schedule.

The 'design' would give a broad outline in summary form; it should be supplemented by detailed planning of the entire action programme, covering all the above aspects – and more, if necessary. In other words, ' what to do', and 'how to do them', (including who, where, when, with what) all through the experimental programme must be spelt out in all essentials. No plan should be taken as rigid; reasonable flexibility and change should be permissible even re-planning or revision (but such changes should be recorded). The action programme may be as long and substantial as considered desirable or necessary to bring about the desired changes to a marked extent.

Conducting Action Research – *Implementation*

A clear design and a detailed plan should make the execution smooth and productive. All activities planned must be prepared for and carried out well in good faith and with all earnestness. The continual programme evaluation should help in review and revision/re-planning as necessary. It may even be planned in cycles (plan-act-review-feedback-re-plan-act/continue) with clear phases in the total programme. All relevant records must be collected, organized and maintained properly, all intended data too, as planned.

Evaluation – *Data collection, analysis and interpretation*

The plan must provide for adequately comprehensive and continuous evaluation and collection of relevant data. Ideally the principles and methods of programme evaluation (covering processes and products, in relation to context and inputs) should apply; also student evaluation, where academic or developmental programme components figure. Both have to be clearly objective-based and reasonably objective and valid. Subjective perceptions of participants are relevant too. Pre test-Post test comparisons (or initial-intermediate-final position comparisons) would be appropriate where achievement or developmental outcomes are in focus. A variety of techniques and tools would have to be used; diary-keeping continuous observation, special sampled observations, anecdotal records, observation and interview schedules, questionnaires and inventories, tests (oral, written, practical), etc., may be used as necessary. Formal testing may be resorted to where measurable variables (the achievements, abilities, attitudes and personal qualities) are in focus as 'outcomes'.

Analysis is an essential and important component of any research or systematic experimentation. In this case, it may include:

- A brief description of the course or progress of the action programme as planned and carried out;
- A critical analysis or qualitative evaluation of the programme (process in particular) emphasizing the strengths and weaknesses, the plus points and the minus points, difficulties encountered and ways of overcoming them, objective-subjective perceptions of the target groups and participants etc. (separately, or integrative with the above description)

- Qualitative evaluation of the 'outcomes' or 'effects' as assessed through continual observation and other informal and formal techniques of evaluation) and depicting the trends of changes/gains; variables – taken in wholes or in components (like different levels/kinds of achievements, cognitive capabilities etc.)
- Descriptive statistics, giving pictures of the initial, intermediate and final positions, extent of changes or gains, comparisons between such positions etc. (as appropriate)
- Graphical representation of initial and final positions, and more importantly of the extent of gain.
- Inferential statistics, testing the significance of difference between the initial and final positions, and such other statistics as appropriate.

These may be done separately for different target groups or institutions. The above would yield different kinds of findings of the action research. These may be interpreted in terms of their meaning, significance, cause-effect relationships, implications for practice and change, etc., (not necessarily as additions to knowledge); they may also be compared with findings in similar (not identical) or comparable projects; and together they may yield moderately valid generalizations on viable alternatives, superior strategies and practices (though the intention was not to seek generalized inferences and conclusions).

Conclusion:

It should be emphasized that all formulations/generalizations of action research are tentative, nothing is absolute or final, there is no one way of doing something well, there are alternatives and choices and things must be varied in relation to relevant factors and considerations.

ACTION RESEARCH - AN APPROACH

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time

T.S.Eliot *(Little Gidding)*

Objective:

The reader understands

- *What action research is;*
- *The main features of action research;*
- *The steps followed in action research; and*
- *The advantages of action research over conventional research.*

INTRODUCTION:

The first standard students invariably go to sleep during the fifth period of the day. With the change over of every period, there is utter confusion in III standard and a good ten minutes are taken away from the planned lesson. The IV standard students have a problem in division with borrowing. The students of standard V commit a lot of spelling mistakes in Kannada. Teacher X never returns the students' assignments. The Headmaster never takes note of the innovative practices of teacher Y. There is a handful of young boys in the nearby slum who are not attending any school. These are but a very few of the myriad of problems confronting us in the sphere of education. Some of them are general to all the schools; but many are specific to each locality, each school, each teacher and each group of students. Where lies the solution for these?

What about all the educational research that has been and is being carried out in our Universities and research institutes? But invariably, people, who perhaps have never taught primary school children, carry out these researches. Their samples are not existing groups of students, but some reshuffled or filtered groups. Their studies are conducted under artificial conditions. Their suggestions are too time-consuming and costly to be practised. There are also other reasons like inadequate dissemination of the research findings, time lag between the generation of new knowledge and its application in the classroom, isolation of the direct beneficiaries and apprehensions in the minds of the teachers about their capability to

take up research in classroom situation. Well then, where do we turn for a solution to our day to day classroom problems? The answer is action research.

WHAT ACTION RESEARCH IS:

Conventional researchers are committed to rigorous procedures; the classroom practitioners need flexibility and intuition in dealing with practical situations. Researchers adopt a stand of neutrality, which poses a problem to the teachers; they have a strong value commitment to their projects. In action research, the practitioner becomes the researcher. Action Research aims to help practitioners refine their own educational practices. It tries to do this by bringing research into the classroom setting. Action research combines a strong research component with a respect for participants' knowledge and understanding. It provides a way of working which links Theory and Practice in to the one-whole. Action and Research are integrated and proceed simultaneously.

Action Research may be defined as **"a form of collective, self reflective, scientific enquiry undertaken by practitioners in their immediate situations in order to improve their own social or educational practices."** Kurt Lewin, who is considered the father of action research, first generated the concept of action research in 1946. This approach has not been widely employed in educational research.

WHAT ACTION RESEARCH IS NOT:

- It is not the usual thing that teachers do during the course of their regular teaching.
- It is not just problem solving.
- It is not research done on other people.
- It is not the rigorous fundamental research.
- It is not the testing of educational theories or of highly specific hypotheses.
- It is not the research done outside the portals of the classroom by people outside the school.
- It is not a high level academic exercise without immediate application to the classroom.

KEY POINTS ABOUT ACTION RESEARCH:

Hult and Lennung (1980) and Kemmis and McTaggart(1988) have outlined a number of key features of action research:

1. Action research takes place in an immediate situation.
2. It is performed collaboratively.
3. It is a scientific attempt of putting practices, ideas and assumptions to test.
4. It is participatory: it is research through which people work towards the improvement of their own practices.
5. It is an approach for improving education by changing it and learning from the consequences of changes.
6. It starts small. It normally begins with small changes, which even a single person can try, and works toward more extensive changes.
7. It begins with small groups of collaborators at the beginning, but widens the community of participating action researchers.
8. Those affected by the planned changes in action research have the primary responsibility for deciding the course of the research.
9. It is a cyclical process of planning, action, observation and reflection.
10. Action research is open-minded;
11. It offers a flexible approach to school improvement through critically informed action and reflection.
12. It works in the real complex and often confusing circumstances and constraints of each school.
13. It simultaneously assists in practical problem solving and expands scientific knowledge.
14. RESEARCH is used to evaluate ACTION and ACTION provides an experimental situation for RESEARCH.

THE COURSE OF ACTION RESEARCH:

I. **LOOK:**

What is the starting point for action research? It is the genuine concern of people to improve whatever is happening around them. People should be not only open-minded; but in the first place, they should be open-eyed. Look with concern.

I. a. **Concern:** Look at what causes you concern; what you are concerned about; what needs to be improved. One or more persons may be concerned about the same point. The conditions that cause concern need not be problems - not something pathological, but just that they could be improved. The 'concern' may be related to classroom teaching, discipline, administration or some community situation.

I. b. **Research questions:** Once the concern has been identified, questions are posed. Why are things as they are? How can they be improved?

II. **PLAN:**

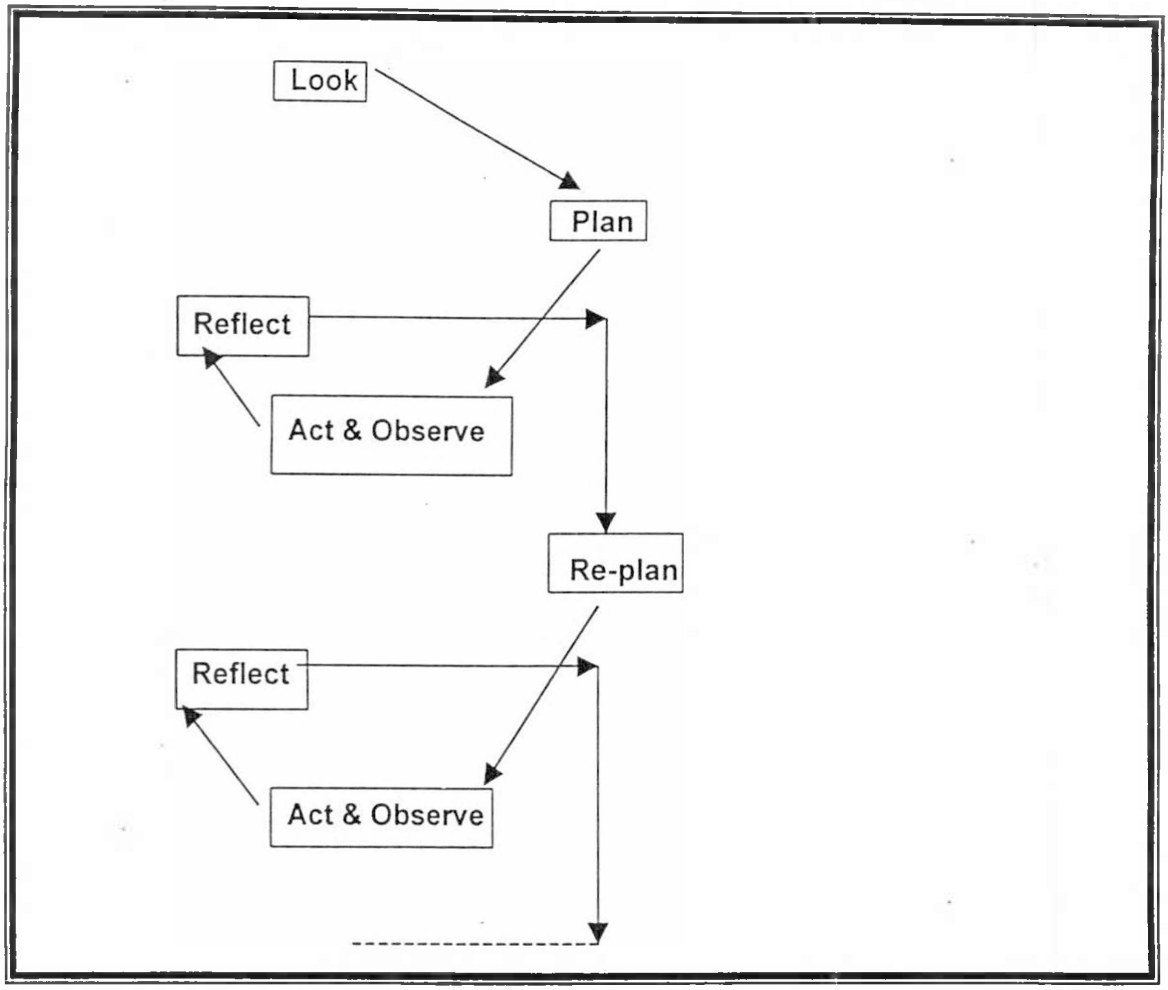
The concern and the research questions serve as the starting point for the action research. Then the research goes through repeated small cycles of planning, action, observation and reflection.

II. a. **Collaborators:** Action research is collaborative. Once it has been decided which prevailing practice or an aspect of it needs improvement, the next effort is to collaborate with people who are also concerned about the same; they may be the colleagues, headmaster, parents or students themselves. To begin with, it may be a small group of two or three and in the subsequent cycles, the group may enlarge.

II. b. **Evolution of the plan:** A particular practice needs to be changed. What strategies can be adopted to effect a change for the better. An answer to this may be borne out of discussions with the collaborators and/or others, who may also be interested in the practice. A review of related literature may help in choosing strategies. At times, the experts' opinions may also be sought. In yet other cases the plan evolves out of sheer intuition. At this stage the tools that may be required to assess the effects of the change will also have to be planned.

II. c. **Proposed change in practice:** Various alternatives may be thought of. All these should be critically analysed. Finally one or two strategies may be tried in the action research. The solution to the problems may be hypothesised. The plan for change should be forward-looking. Often it may be ill-defined; but with subsequent cycles, it would get refined. The plan should be flexible to adapt under the existing situation, with prevalent constraints of the school and also to be carried out in a short duration.

ACTION RESEARCH SPIRAL



Moves in Action Research

LOOK	PLAN	ACT	OBSERVE	REFLECT
• Concern • Research questions	• Collaborator • Evolution of the plan • Proposed change in practice	• Change in action	• Evidence for change	• Findings • Validation

III. ACT:

The change in action: It is the deliberate and controlled implementation of the plan. It is a careful and thoughtful variation of the existing practice. The context and the constraints may necessitate a modification of the plan at the time of implementation. This calls for instant decision and practical judgement. First of all, the tools, if any, will have to be prepared. Then the plan has to be carried out step by step.

IV. OBSERVE:

Evidence for change: When the change is being put to test, there should be elaborate and careful documentation of the effects of the changed practice. The evidence for the effects of the change may be gathered in different ways. In other words, there could be data from multi-source. The data could be quantitative or qualitative. Unlike in the conventional research not only the objective data, but also the subjective data have significance in action research. The evidence could be from a questionnaire or an interview or performance or the views and opinions of the students, peers, educators or parents or the observation of the body language of the participants. The observation could be undertaken by the collaborators, colleagues and/or the HM, in addition to the researcher himself. The researcher should be responsive and sensitive to the situation; he should also be open-eyed. He should be ready to document the unexpected also; he should be open-minded. Utmost care and sincerity should be exercised in documenting the evidence, as this provides the basis for the reflection.

V. REFLECT:

V. a. **Findings:** A thorough scrutiny and analysis of the collected evidence would reveal how effective the changed action has been in bringing about the desired result; if it has really improved the existing practice. The research tells you what sort of an action brings in what sort of an improvement; thus it adds to the knowledge. Though most of the action researches address local problems, some of them do deal with problems of a more general nature. In that case, if the research yields a positive result and if a new procedure or technique or practice has been tested, this may catch on with the other

teachers in the same school, then with the other schools, the entire district, the State and the country in subsequent cycles; it would gain wider acceptance and be acclaimed as a standard practice in due course. On the other hand, if the research has not yielded a positive result, then alternate strategies may have to be tested in subsequent cycles. Even if the result has been positive, the problem may be better defined and the strategy also further refined subsequently or additional strategies may also be put to test. Thus reflection leads to re-planning.

V. b. **Validation:** The effect or the impact of the new practice has to be validated before it could be accepted. Validation is done by analysing the data. If the data is quantitative, statistical analysis and interpretation can be resorted to for the purpose of validation. If the data is qualitative, different procedures of validation may have to be adopted. Reporting the findings and critical discussion serve the purpose. The views of different groups of people will be useful at this stage. If validation leads to the conclusion that the effect of the changed practice is inadequate or further improvement is required, the action research has to go through a next cycle of re-planning, action, observation and reflection. With every cycle the educational practice will be progressively improved. During the course of the research, it might occur that it is some other aspect of the educational practice that needs to be improved; this will lead to another action research.

ADVANTAGES OF ACTION RESEARCH:

- It is more acceptable to teachers.
- It does not require expert training in measurement, statistics and research methodology.
- It takes place in far more naturalistic settings.
- Pupils taught by the teacher are used as subjects.
- It deals with total situations and recognises the complexity of constraints.
- The demand on resources for action research is very little.
- It is highly flexible.
- Research and Action can be mutually supportive.
- The findings are straightaway applied to the classroom transactions.

- It serves as a sort of in-service training.
- It enables socially committed researchers to work towards social change as well as the expansion of norms.
- It may be one way of creating a 'transformative' school, which aims to transform social relations rather than simply replace them.

CONCLUSION:

When the teacher and the researcher become one, there is no question of any time lag in the newfound knowledge entering the classrooms. What is more, the findings of action research are absolutely relevant to the subjects, situation and time. The application of the new knowledge need not be a separate effort, as the transformation from the old to the new practice is concurrent with the action research. Action research gradually transforms the practitioner-teacher, the situation in which he acts and the teaching-learning process. It is not a single cycle of processes; it is a systematically evolving, living process. It is an ongoing process, with one cycle leading to further cycles and one action research paving the way for other researches. It is never ending, for there can be no end to transformation and evolution. Action research is a perennial spring - a spring of concern, research, action and knowledge.

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Transaction (At RIEM)

RESOURCE PERSONS' WORKSHOP

21.07.98 Session 10:00 – 11:15 Hrs

Dr.Upadhyaya welcomed all the members and explained briefly the background of taking up the project with the sponsorship of DPEP, Karnataka.

Dr.S.N.Prasad, Principal, spoke about the DPEP-RIEM collaboration and explained in detail the different types of academic support extended by the RIE faculty to DPEP in carrying out various activities like Baseline Assessment Study of phase II districts, etc.

Dr.K.K.Vasishtha gave a brief outline of the purpose of research studies and the process involved in conducting the research studies.

Dr.Sindhe gave an account of the plan of action of the Project in different phases.

Session 11:30 – 13:00 Hrs

Mrs. B.Sarada presented an approach paper in view of the rescheduling of the programme on account of Dr. P.R.Nayar's inability to attend the workshop on the first day.

In the briefing session, the various stages in Action Research viz., Look, Plan, Act & Observe and Reflect, were explained respectively by Mrs.B.Sarada, Mr.H.L.Satheesh, Dr.U.Laksminarayana and Mrs.S.K.Shamala.

Session 14:00 – 15:15 Hrs

There was a lively discussion on the briefing session and members raised various points relating to identifying the area of concern, planning, implementing the plan effectively and achieving success. Views were exchanged on various ideas. A suggestion was also made to include cost estimation of the action research programme undertaken by teachers and a paper in this regard to be included in the training package. Dr.G.P.Basavaraju agreed to write this paper on cost estimation. At the end of the session, broad consensus was arrived at about the various aspects of Action Research viz., Look, Plan, Act & Observe and Reflect.

Session 15:30 – 17:00 Hrs

The team members discussed and finalised the points for panel discussion, the action research plans to be included in the package. Dr.Sindhe requested the team members to go through the draft material provided to each member and to suggest any revision/modification, so that the same could be incorporated.

22.07.98

Session 10:00 – 11:15 Hrs

Dr.Nayar.P.R and Mr.Parthasarathy Raju. M.V, both of whom could not attend the workshop on 21.7.98, attended the same today. Dr Upadhyaya welcomed both of them and briefed them about the previous day's activities.

Dr.S.N.Prasad spoke about the problems and issues in Primary Education and also explained in detail the concerns of the Govemment and of the HRD Minister on this issue. He dwelt at length on the recent international seminar and the happenings therein and stressed the importance to tackle the problems of primary education effectively. He hoped that the action research would provide some effective solution to improve the quality of education.

Dr. K.K.Vasishtha listed the various problems – both academic and administrative – and gave an account of the situation prevailing in the country. He said that problems were abundant, but they had to be selected carefully keeping in mind the nature of the problem and the ability of individual teacher/ institutions under which one has to work.

Mr.Parthasarathy Raju reacting to Dr.Prasad's mention of HRD minister's idea of low cost high efficiency system and concept of para-teachers, said that Karnataka was already at it and that in many places it had appointed village teacher motivators on an honorarium of Rs.1000/-. He added that multi-grade teaching was still a major issue.

Session 11:30 – 13:00 Hrs

The various activities suggested in the draft for the orientation workshop were discussed in detail and the same was finalised in this session. Changes suggested were taken note of for incorporation in the final training package. The different team members were entrusted with different responsibilities to ensure smooth execution of the entire Programme.

Session 14:00 – 15:15 Hrs

The various activities suggested for workshop I and workshop II were discussed. Some modifications in the activities like combining some activities and rescheduling a few were suggested. The same was taken note of for incorporation in the final copy.

The activities for the sharing workshop were also discussed and finalised.

Session 15:30 – 17:00 Hrs

The materials for workshop I and workshop II were presented. After much discussion, some modifications were suggested which were taken note of for incorporation in the final copy of the training package.

Products of the programme and the content for each were discussed and finalised.

ORIENTATION PROGRAMME FOR THE DIET FACULTY

3rd August 1998

26 members drawn from the 11 DIETs of the DPEP districts, Karnataka State, attended this Orientation Programme. Three faculty members represented each of the DIETs of Bangalore Rural, Belgaum, Dharwad, Mandya and Mysore and two members represented Bellary, Bidar, Bijapur, Gulbarga and Kolar DIETs. A lone faculty member represented the Raichur DIET.

This programme started as scheduled with the inaugural address by Dr.S.N.Prasad, Principal, RIE, Mysore. In his address, Dr. Prasad highlighted the need for Action Research at the Primary School level. The role of DIET faculty in promoting this cause was also explained. He hoped that this programme would give the necessary inputs to the DIET staff who in turn could bring about the change at the Primary School level.

Dr.Sindhe, the Co-ordinator of the programme, gave a detailed account of the planned training. The role of various agencies in carrying out this research was also explained. Prof. P.R. Nayar dealt in detail with the concept, process and procedure of Action Research. The salient features of Action Research and its impact in classroom situation were also emphasized. He further stated that there was a need to find local solutions to local problems in the field of education and felt Action Research would help teachers and educationists in finding solutions to their problems. He urged the DIET faculty members to take up such problems that are faced by the primary school teachers and engage themselves in conducting Action Research on the lines of the training package developed for this purpose.

Dr.K.K.Vasishtha highlighted the various problems and issues in the field of Primary Education. The need for finding solutions to the classroom problems by the teachers was emphasized. In this regard, he advocated the use of Action Research.

The day's concluding session was in the form of panel discussion. The panelists from the resource persons' team discussed the following issues:

- Work done by the teacher-researcher
- Implications of action research to classroom teacher
- Comparison of action research with fundamental research
- Financial planning
- Overview of action research plan

4th August 1998

The second day's programme started with a session on 'Look', the starting point of action research, by Mrs.B.Sarada. During this session, the focus was on the identification of problems for action research. The need for a concern in taking up these problems for action research was also discussed. The various aspects of 'Look' such as objectives, hypotheses and research questions were discussed in detail. Mr.H.L.Satheesh discussed another dimension of Action Research, viz., 'Plan' in the next session. The need and importance of planning and essential points to be borne in mind in the light of the problem selected for Action Research while planning were discussed. In the pre-lunch session, two teachers who had actually conducted Action Research presented their studies – 'Effectiveness of Learning Base 2 System by Simulation Method' by Mr.H.S.Sastry and 'Developing "Recoding" and "Transcoding" Writing Skills among Students of Class V' by Mrs.S.K.Shamala. This was followed by an interaction session wherein the Action Researchers answered the queries raised by the participants. The afternoon session was devoted for group work. The faculty members of each DIET and one Resource Person formed a group. The groups were asked to discuss and identify the problems faced by the Primary Schools. These problems were then prioritized for the purpose of group presentation. Each DIET was asked to select 2 activities for action research. In the final session of the day, the DIET faculty presented the two problems identified by them, which was followed by discussion and feed back by the participants and the Resource Persons.

5th August 1998

The third day of the Orientation Programme began with the presentation of the other two aspects of action research, viz., 'Act and Observe' and 'Reflect' by Dr.U.Lakshminarayana and Mrs.S.K.Shamala respectively. The first presentation dwelt upon the importance of implementation of action research as per the plan. The hurdles that might be faced while implementing were also discussed. The second presentation emphasised on scrutinising the data, listing the findings and report writing in action research. These presentations were followed by group interaction. The pre-lunch session had presentations of two more action research studies - 'The Effectiveness of Using "Ganitha Bhaskari" in Teaching Addition at the Primary Level'

by Ms.E.Roopa Rao and 'Activity Based Teaching - Learning Strategies (ABTS) in Large Sized Class at Primary Stage' by Mrs.M.Sharada. The presenters explained in detail the studies conducted by them and shared their experiences while conducting the action research. The post lunch session was devoted to group work. Each DIET under the supervision of one Resource Person worked out a proposal for one action research. Only the first two aspects of action research, viz., Look and Plan, were outlined in the proposal.

6th August 1998

The fourth day's proceedings started with the DIET-wise presentations of action research proposals. Printed action research proposal formats were supplied to all the groups and they were asked to submit the proposals in the given format. Each presentation was followed by a feedback session wherein the participants, Resource Persons and experts gave suggestions for modification/improvement of the proposals. This exercise provided the participants the opportunity to reinforce their knowledge relating to action research. In the afternoon session, group work was carried out to prepare proposals for activity 2.

7th August 1998

On the fifth day, there was a lecture on 'computers in action research' by Dr.S.N.Prasad to enable the participants to develop an awareness of the use of computers in action research. How computers can be used for purposes of analysis of data, preparation of reports, etc., were explained to the participants. After this, the DIETs presented their proposals for activity 2; that was followed by a feedback session. The DIET faculty took note of the suggestions given during the feed back session for incorporation in their proposals. The programme concluded with a wrap up session wherein the panelists highlighted the tasks to be performed by the DIET faculty when they went back to the DIETs. A checklist of activities to be carried out at the DIET level and the materials to be brought for the next workshop was provided to each DIET. Clarifications were given to the queries raised by the participants. The Senior Programme Officer, DPEP, Karnataka, clarified the points raised by the participants regarding administrative matters.

WORKSHOP I

18th August 1998

This workshop was intended to train the DIET faculty in finalising the proposal for the action research in their district. Before the workshop, the DIET faculty had consulted the collaborating teachers regarding their classroom problems. The teachers' ideas and their field experiences were taken into consideration while finalising the proposals for the action researches.

This programme was attended by only 10 DIETs. Kolar DIET did not participate in this workshop. One faculty member from Bellary DIET had dropped out. All other members took part in the workshop, which was held, from 18-22 August 1998 at RIE, Mysore.

'Tools and Techniques' a key aspect in conducting action research was discussed by Mr.H.L.Satheesh, which enabled the participants to develop an awareness of various techniques and tools involved in action research. The interaction provided opportunity for the participants to design pre tests and post-tests for their action research proposals. Activity Sheet B, wherein the various techniques and tools and their relevance in the assessment, the recording procedure and time schedule were highlighted, was discussed by Mrs.B.Sarada. This was followed by DIET-wise presentation of revised action research proposals for activity 1. The feed back that followed enabled the DIET faculty visualize the strategies to be adopted for implementation and evaluation.

19th August 1998

The second day started with a discussion on activity sheets 'C' & 'T' by Mr.P.R.Rao. T sheet was meant for the use of each collaborating teacher for recording daily action and observation during the three weeks of implementation of the action research. C sheet was meant for the use of the DIET faculty. They were expected to enter the details of the three schools involved in the action research and also the consolidated account of the actions taken and the observations made in the three schools week-wise. This was followed by DIET-wise presentation of revised action research proposals for activity 2. The feedback clarified their idea of implementation and evaluation.

20th August 1998

Third day started with group work in which the DIET faculty discussed with their resource persons and incorporated the changes in their action research proposals suggested during the feed back sessions of the previous days. With a view to provide an awareness of the latest techniques of word processing and data processing, provision was made in the programme to introduce computers. There was an introductory talk and demonstration of the use of MS Word by Mr.D.N.Nagaraju. Then the participants had a hands-on experience, which enabled them to acquire basic skills in Windows and MS Word.

21st August 1998

The fourth day's work began with the DIET faculty working in groups to design thetools and techniques for their action research in consultation with the Resource Persons. Mr.D.N.Nagaraju demonstrated the use of MS Excel for data entry. The afternoon session was devoted to hands on experience on MS Excel.

22nd August 1998

On the final day, the session started with the participants presenting their activity sheet B in which the techniques and tools to be adopted for the action research were highlighted. Useful suggestions poured in during the feed back session. The day ended with a wrap up session regarding the course of action to be followed by the DIET faculty in the next 35 days. For this purpose a checklist 'in the field' was given to the participants. At this stage it was decided to have only one activity each for DIETs Bellary, Bidar, Bijapur and Raichur and two each for the remaining 6 DIETs for their action research. This resulted in a total of 16 action research studies to be undertaken in this project. A detailed task grid was to be prepared by the participants to undertake the fieldwork. Guidelines were given for this task.

WORKSHOP II

This programme was intended to prepare the action research reports in the light of the activities conducted in the classrooms and the data collected. The participants brought both qualitative and quantitative data collected by them during the action research activities conducted by the collaborating teachers in the classrooms during the three weeks.

With a view to provide guidance to analyze the data and prepare the report, lectures from experts on the topics of analysis and interpretation and report writing were organized. The computer facilities were extended to the participants for the purpose of analysing the data and writing reports. Relevant books, research Reports, journals and other related study materials required for report writing were made available in the workshop venue on all the 10 days. The library services were hired from the RIE for the benefit of the participants

6th October 1998

The Opening session began with a lecture by Dr.K.K.Vasishtha (an expert from the Advisory body) on report writing wherein the various aspects relating to report writing such as structure, format, language, style, presentation both textual & graphic, etc., were explained in detail. Participants were also requested to prepare an abridged version of their final reports. For preparation of abridged version also, a format was given and guidance was provided. Doubts raised by participants on report writing were clarified. This was followed by another lecture by Dr.P.R. Nair (another expert from the Advisory body) on Analysis and Interpretation. The importance of qualitative and quantitative data and their role in report writing were discussed. The statistical tools, which can be employed for analysis of quantitative data, were highlighted. Keeping in mind the ultimate user, i.e. primary teachers, it was suggested that the participants go in for very simple statistical measures in the analysis and lay more emphasis on qualitative aspect. Doubts raised by participants on analysis and interpretation were clarified. The rest of the day was devoted for group work of preparing the report on activity 1 under the guidance of the Resource Persons.

7th and 8th October 1998

Second and third days were devoted entirely to group work wherein the preparation of the draft report of activity 1 continued. Participants studied the related literature and other study materials provided to them by the library. They also used the computers for analysis of data and generation of tables, graphs, etc.,

9th and 10th October 1998

On the fourth and fifth days, six DIETs presented their reports on activity 1. Each DIET was given sufficient time to present its report with all the relevant details. At the end of each day, suggestions for modification and improvement of the report were given in the feed back session. The participants were asked to take note of the same and incorporate the changes in their final reports. They were also asked to prepare the abridged versions on activity 1 simultaneously.

11th October 1998

On the sixth day, the participants finalised the report on activity 1 and also prepared the abridged versions in the light of the feedback session. Minute details regarding preliminary pages of the report, the formats relating to graphs, tables, annexure, bibliography, etc., were discussed with each DIET and suitable instructions were given for preparing the final report. The final report on activity 1 submitted by the DIETs were scrutinised by a group of Resource Persons.

12th and 13th October 1998

The next two days were devoted for group work wherein participants discussed and prepared the draft report for activity 2. Even for this activity library work and computer facility were resorted to by the participants. On 13.10.1998, in the morning session, DIETs Bidar, Bijapur and Raichur presented their reports. These DIETs had carried out only one action research each. Feed back session followed immediately for the benefit of the presenters.

14th October 1998

On the 9th day, i.e. 14.10.1998, DIETs Bangalore Rural, Belgaum, Dharwad, Gulbarga, Mandya and Mysore presented their reports on activity 2. Each presentation was followed by a feedback for improvement. However, these reports

could not be refined thoroughly as in the case of the previous reports due to paucity of time. The DIETs were asked to finalise them using the available local resources.

15th October 1998

On the concluding day, the participants prepared the abridged versions for the second activity. In the post lunch session there was a brainstorming session involving all the participants and the resource persons in which Mr.M.V.Parthasarathy Raju, the Special Programme Officer, DPEP, Karnataka also took part. The participants were asked about the probable course of effective dissemination of the concept and use of action research and also the work done by them in the project. The exact strategies to be worked out for this purpose were also discussed. The SPO also spoke to the participants and gave suggestions for organising the dissemination programme effectively. The participants came out enthusiastically with details of their action plan. A wrap up session followed in which instructions were given to the DIETs regarding the tasks to be done by them before coming to the Sharing Workshop in November 98. They were asked to bring four copies of the action research reports for each activity in the printed and bound form. They were also asked to bring each report in separate floppy. They were asked to plan for the activities in the Sharing Workshop such as organising an exhibition of the teaching aids used during the action research, presentation of abridged version and of the views and opinions of the collaborating teachers, etc. A meeting of Resource Persons and the SPO was held to finalize the agenda for the Sharing Workshop.

SHARING WORKSHOP

4-11-1998 Session 10:00 – 11:15 Hrs

Dr.B.S.Upadhyaya, State Coordinator, RIEM, welcomed Dr.S.N.Prasad, Dr.P.R.Nayar, Dr.K.K.Vasishtha, the principals of the DIETs, the team members and the participants to the Sharing Workshop. All those present introduced themselves.

Dr.S.N.Prasad released the **Abridged version of the 16 Action Researches** carried out by the 10 DIETs. He appreciated the work done by the Team and the DIET faculty. Highlighting the importance action research is gaining in the present days' context, he added that action research would form an important subject in the curriculum of the two year B.Ed. envisaged by the NCTE.

Calling this programme 'the longest, most substantive (in many respects) and well thought out training programme of maximum human effort', Dr.Nayar gave his valuable, concrete suggestions for the improvement of action research to be carried out in future. He pointed out the need to analyse the concern thoroughly so that it would lead to better understanding of the problem and designing the most appropriate strategies. Wherever a few strategies have been used to realise the objective, he said that it would suffice to assess the impact of all the strategies together as a single package; by comparing the effect of the different strategies, the action research would slide into fundamental research. While remarking that predetermined cycles should not be artificially emphasized, he pleaded for downplaying the evolution of plan, collaboration and validation in the report. He desired the inclusion of one more dimension in statistical analysis, i.e, to divide the subjects into three or five groups and compare their performance in the pretest with their own performance in the posttest so that it could be inferred which group had benefited most by the interventions.

Pointing to the dual role of the DIET faculty, Dr.A.S.N.Rao Sindhe, the Programme Coordinator, opined that they should train others in *classroom action research* and engage themselves in *community based action research*. He also stressed the importance of dissemination - both intra-district and inter-district - of the action researches.

Sessions: 11:30 - 13:00 and 14:00 - 15:15

In the following two sessions, there were brief presentations of eight action researches; some of the DIETs made use of the OHP for the purpose. The pre-lunch session was chaired by Mr. Ramachanrdra Rao, the Principal of Dharwad DIET and the post-lunch session by Mr.Pakalandar, the Principal of Belgaum DIET.

Session: 15:30 - 17:00 Hrs

In the last session of the day, the questionnaire developed specifically for the evaluation of the programme was administered to all the participants. Later the participants were busily engaged in arranging the exhibition of the materials related to their action researches.

5.11.1998 Session 10:00 – 11:15 Hrs

The day began with the inaugaration of the Exhibition by Dr.P.R.Nayar. The participants were explaining the utility of the materials exhibited by them, while the dignitaries, resource persons, a few school teachers and other visitors went around evincing keen interest in the exhibits.

Sessions: 11:30 - 13:00 and 14:00 - 15:15 Hrs

There were brief presentations of the remaining eight reports by the DIET faculty during these two sessions. The presentations were interspersed with question answer sessions. The pre-lunch session was chaired by Mr.Eshwar Bhat, the Principal of Mysore DIET and the post-lunch session by Mr. Ramachanrdra Rao, the Principal of Dharwad DIET.

Session 15:30 – 17:00 Hrs

The participants' responses to the questionnaire on the evaluation of the programme had been subjected to statistical analysis overnight and Mr.P.R.Rao presented the gist of the same. The two collaborating teachers from Raichur and the faculty member from Bellary DIET expressed their views and opinions

6.11.1998 Sessions 10:00 – 11:15 and 11:30 - 13:00 Hrs

Opining that action research is an old concept, but that it had not gained any importance all these years, Prof.K.K.Vasishtha pointed out that action research is a much broader concept than diagnostic and remedial teaching; the latter could be an action research. Remarking that the present one was the longest training programme he had witnessed in his entire career, he added that there was scope for improvement. He suggested that care should be taken to maintain the equivalence of the pretest and posttest.

One member from each DIET faculty expressed the views and reactions of the teachers to the action researches carried out. Each one was also requested to state, given an opportunity to carry out the same action research another time, how differently he/she would like to carry it out. Their responses revealed that they were getting a better grip of the concept of action research. The Principal of the Bangalore Rural DIET, Ms.B.S.Vimala, expressed the feelings of the collaborating teachers. In the case of Mysore DIET, one of the collaborating teachers herself explained her experiences with and reactions to action research.

The teacher from Mysore expressed that all the teachers needed training in action research and that they were willing to forego a part of their holidays in order to undergo the training. The Dharwad DIET faculty, who had included over sixty activities in their action research, realised that an overdose of anything was not good. The DIET faculty from Gulbarga opined that only sincere teachers would be willing to take up a self-enquiry, which forms the basis of action research and wondered how the other teachers could be lured to action research.

The compere, Mrs.B.Sarada, reiterated that action research is not a teaching method; but it is a means of solving local problems. Action research should not be taken up as a separate entity over and above classroom teaching; but it should be integrated with regular classroom teaching. Action research may be resorted to not only to improve the understanding of certain concepts by the students, as was the case in most of the action researches in the present training programme; but even in order to solve problems of discipline and community problems like non-enrolment of girl children. She also answered the query from the DIET faculty of Gulbarga saying that the personnel of the DIET, BRC or CRC or the Heads of the institutions could

take up action research in order to bring in a change in the attitude of those who are not teachers in the true spirit of the word.

Later there was an exclusive session between the DPEP and the DIET personnel to plan the **future course of action** for effective dissemination of the concept and use of action research and of the work carried out hitherto. The Special Programme Officer, DPEP, Mr.M.V.Parthsarathy Raju, was in charge of this session.

Session 14:00 – 16:00 Hrs

A formal valedictory function took place in the final session of the programme, which was compered by Mrs.B.Sarada. The State Coordinator, Dr.B.S.Upadhyaya, welcomed the gathering. Dr.S.N.Prasad, the Principal, RIE, Mysore presided over the function. In his address, he encouraged the DIET faculty to send the reports of the action researches they have just carried out and also of those they might take up in future to the State level and national seminars on education.

Mrs.Jayalakshmi, a faculty member of the DIET, Mandya, presented a poem in Kannada composed by her. The present training programme in action research itself formed the subject of her poem. This was followed by a brief account of the outcomes of the current training programme by Mr.P.R.Rao. Action Research Training Package, an abridged Kannada version of the training package -'Kriya Samshodhane', a book of the abridged versions of the sixteen action researches and the report of the training programme are some of the significant materials brought out during this training programme. He also revealed that an analysis of the evaluation of the training programme by the participants showed that 19% of the participants had rated the programme on the whole as excellent, 45% as very good and 31.5% as good.

Mr.Ramesh, one of the collaborating teachers from Raichur, sang a Kannada song in the folksong style. He composed this song on action research. Mr.M.V.Parthasarathy Raju, the Special Programme Officer, DPEP, was the Chief Guest for the function. In his address he lauded the work of the resource persons and the DIET faculty and also detailed his plans for dissemination of the work.

Dr.Sindhe proposed the vote of thanks.

Production

(Abridged Versions of Sixteen Action Researches)

Improving the ability of class III students to speak and write Kannada correctly

Action Researchers: Devi Prasad, Geetha Manuel & Haseena Begum
Area: Kannada - Language

Look:

Concern: Most of the learners of class III find it difficult to pronounce words correctly and they are also poor in writing Kannada.

Research Questions:

- How far would participation in Guided Activity Based Learning (GABL -flash cards, audio cassettes, word list, revolving circular word discs, word clocks and games) help the children to overcome the deficiencies in speaking Kannada?
- How far will activity based learning help the students overcome the mistakes in writing?

Plan:

Collaborators: Shashikala.D, Mangalagowramma & Thimmaraju. M.R.

Evolution of the Plan:

- Class room experience
- Discussion with colleagues and collaborating teachers
- Intuition

Action Hypotheses:

- Use of audiocassettes, Flash cards, word lists, revolving circular word discs, word clocks and language games in classroom situations help the students to overcome the deficiencies in speaking Kannada.
- GABL will help the students write Kannada without mistakes.

Act:

Change in action:

Introducing GABL in the classroom (Flash cards, audio cassettes, word lists, revolving circular word discs, word clocks and language games) to improve the skill of III standard students to speak and write Kannada correctly.

Observe:

Evidence for change:

- 23% increase from pretest to posttest in the mean performance of the students.
- Marked improvement in speaking and writing ability of students
- Improvement in speaking and writing skills of the students was the maximum with the use of individual activities.

Reflect:

Findings:

- A positive influence of GABL on speaking and writing skills.
- Enthusiasm both among students and teachers in general with the introduction of GABL.

Validation:

A positive feedback received from students, collaborators and other teachers

Improving the observation skills among the students of class I

Action Researchers: K.S.Bangari, K.S.Karichannanavar & A.B.Pundalik

Area: EVS

Look:

Concern: Primary school children are not observing the environment around them critically.

Research Question:

- How far can observation skills among students of class I be improved through guided activities and field experiences?

Plan:

Collaborators: A.Y.Dabbu, D.V.Pujar & I.B.Mirjakar

Evolution of the Plan:

- Discussion with RIEM faculty
- Discussion with colleagues and collaborating teachers

Action Hypothesis:

- Guided activities and field experiences improve the observation skill among students of class I

Act:

Change in action:

- Guiding the students to observe the animals, plants and objects around the school and the weather conditions and geographical features of the village.
- Asking the students to feel the objects and observe the difference between hot & cold, soft & hard and smooth & rough.
- Introducing the students to different colours and smells through common objects, flowers and charts.
- Asking the students to collect common objects and to draw and colour a picture of their choice.

Observe:

Evidence for change:

- Increase of 18.2% in the mean from pre-test to post-test performance in observation skills
- 25% increase in the number of students scoring above 60%
- Increase in interest and participation of the students

Reflect:

Findings:

- The present intervention of guided activities and field experiences have improved the observation skills of the students

Validation:

- From the feedback obtained by the collaborators and students
- Students participated and enjoyed during the activities

Improving the skill of class I students in reading three lettered words in Kannada

Action Researcher: M.Eshappa

Area: Kannada

Look:

Concern: The traditional classroom practices followed by the primary school teachers doesn't seem to help Class I students to read three lettered words in Kannada

Research Questions:

- Can a group activity of preparation of sand letters help the students of class I to identify the vowels and consonants of Kannada?
- Can a group activity of construction of simple familiar words of not more than three letters help the students of class I to read the words independently?

Plan:

Collaborators: M.N.Srimathi, K.C.Lakshmidevi & Eramma

Evolution of the Plan:

- Discussion with colleagues and collaborating teachers

Action Hypothesis:

- Group activity of preparation of sand letters will improve the skill of class I students in identifying the vowels and consonants of Kannada.
- Group activity of construction of simple words of not more than three letters will improve the skill of class-I students to read the words independently.

Act:

Change in action:

- Students worked in groups and prepared letters using sand on flash cards after the demonstration by the teacher. They read the letters prepared.
- Students practiced reading words after assembling the flash card letters on flannel board. Picture charts provided the words to be framed.
- Students practiced reading words from the word grid. Students with chest letters framed the words, sung by the teacher.

Observe:

Evidence for change:

- Opinions of the collaborating teachers:
  The new method is interesting and effective.
  Children who used to be absent and inactive started attending and took interest in the activities.
- Behaviour of students: Truants became regular learners. Students were curious, interested and absorbed in the group activities and interaction

Reflect:

Findings:

- Increase in the mean from pre-test to post-test shows that the interventions were effective.
- There was a decrease in the absenteeism of students.
- The student participation, interest and involvement in the activities were encouraging.
- The teachers felt that the interventions were fruitful.

Validation:

- Statistical analysis
- Feedback from collaborators and headmasters

Improving the hand writing skills of Class - III students

Action Researchers: Mohammad Tayyub Khan & K.M.Kamble

Area: Hand writing in Kannada

Look:

Concern: Most of the students are not able to read what they themselves have written due to illegible handwriting.

Research Question:

- How far can the Class III students be helped to improve their handwriting through graded demonstration and guided transcription exercises?

Plan:

Collaborators: Basavanappa, Bhadri Narayan & Sangramappa

Evolution of the Plan:

- The plan was developed through discussion among the team members and their past experiences

Action Hypothesis:

- Graded demonstration and guided transcription exercises in writing letters, words and sentences and practicing the same will help the students improve their handwriting.

Act:

Change in action:

- The teacher demonstrated the formation of the letters on the black board, high lighting the size, shape, alignment and proper strokes.
- The students were asked to practice in a two-lined notebook.

Observe:

Evidence for change:

- The students' hand writing was continuously observed over a period of three weeks. Notebooks of subjects other than Kannada were also observed

Reflect:

Findings:

- Students showed interest to write legibly
- The intervention was effective, as most of the students with poor handwriting had moved to the level of satisfactory or good handwriting.

Validation:

- Feedback from the teachers and experts.

Towards improving the skill of Classification among students of class III

Action Researcher: H.S.Nagathan & Y.S.Chour

Area: EVS

Look:

Concern: Children were found to classify things mechanically by rote memory, without understanding the basis. The prevailing classroom practices of teaching are not helping children to develop this skill optimally and meaningfully. Classification being an important process skill has to be developed among the students at the early stage.

Research Question:

- How far will guided activities help the students in classifying things in their environment ?

Plan:

Collaborators: S.S.Kasturi, G.B.Kuri & R.S.Muddebihal

Evolution of the Plan:

- Detailed discussion with colleagues and collaborating teachers
- Careful reading of MLL document, Unesco Handbook for Science Teachers, SOPT Training modules and III Standard EVS Textbook.

Action Hypothesis:

- Guided activities will improve the skill of class III students in classifying things in their surroundings.

Act:

Change in action:

- Students classified objects on the basis of criteria set by their teachers.
- Students were guided to make observation on similarities and differences of given objects. Later the students were asked to use their observation to classify objects.
- Students were encouraged to make classification based on their own criteria.

Observe:

Evidence for change:

- Analysis of the performance of the students in pre-test and post test.
- Teachers' diaries.
- Opinions of the collaborating teachers.
- Feedback from students and teachers.

Reflect:

Findings:

- The process based guided activities have improved the skill of class - III students in classifying the objects in their environment.
- Every student gained from the guided activities provided to him/her.

Validation:

- Feedback from the teachers and experts.
- Analysis of the quantitative and qualitative data.
- Feedback from the students

Impact of Activity Based Homework on Achievement of class III students in Environmental Studies

Action Researchers: D.B.Krishnappanavar, M.N.Mokashi & S.A.Kulkarni.

Area: EVS - Homework

Look:

Concern: The classroom experiences revealed that traditional type of homework is not improving the achievement of students of III Standard in EVS.

Research Question:

- Does activity based homework enhance the achievement of students of Class III in EVS?

Plan:

Collaborators: N.P.Konnur, Hosamani & Betageri.

Evolution of the Plan:

- Discussion with colleagues and collaborating teachers
- Discussion with the resource persons from RIEM

Action Hypothesis:

- Activity based homework involving observation, collection, preparation, drawing and colouring, and inquiry (while continuing schoolwork in conventional way) will improve the achievement of students in EVS.

Act:

Change in action:

- The classroom teachers changed over to activity based homework like observation, conducting experiments and recording the results, drawing and painting at home.

Observe:

Evidence for change:

- There is just 4% increase in the achievement of the students in EVS after the implementation of activity based homework.

Reflect:

Findings:

- Activity based homework helps the low scorers and average scorers to a large extent.
- This type of activities doesn't help the high scoring students; instead it seems to reduce their achievement level.

Validation:

- Feedback from the teachers and experts.
- Re-planning of this action research is necessary.

Improving the Reading Skill of III Standard Students in Kannada

Action Researchers: Madane Suryakant & Basawaraj Bhosga.

Area: Language - Kannada

Look:

Concern: The classroom experiences revealed that students of III Standard don't have adequate reading ability.

Research Question:

- How far would the reading skill of students improve through model reading, peer group learning and the use of selected learning materials?

Plan:

Collaborators: Rajendra Astikar, Shantaveer Vaidhya & Vithal Waggan.

Evolution of the Plan:

- Discussion with the collaborating teachers

Action Hypothesis:

- The reading skill of third standard students can be improved through model reading, peer group learning technique and the use of selected learning materials like letter chain, letter window, picture story books, albums of News paper head line cuttings, name plates, sign boards, specimens and proverbs.

Act:

Change in action:

- Model reading by the teacher.
- Peer group learning - for practice in group reading.
- Conducting reading exercises using selected materials.

Observe:

Evidence for change:

- Improvement in the reading skill of students as noticed from their performance in pre-test and post-test.
- Students exhibited curiosity, enthusiasm and interest in the activities.
- Improved participation has been noticed in the group activities.

Reflect:

Findings:

- The performance in reading has improved by 23% from pre-test to post-test.
- The number of students whose performance in reading was below 40% has decreased appreciably and these students have moved into higher class-intervals.

Validation:

- Students experienced a positive change as almost all students moved to higher level of performance.
- Improved participation in reading exercises as observed and reported by the DIET faculty.

Improving Class III Students' ability to add three digit numbers

Action Researchers: G.Mahadevamma, Nataraju & Jayalakshmi.

Area: Mathematics - Addition

Look:

Concern: Class III students make a lot of mistakes in adding three digit numbers.

Research Question:

- How far will the use of place value related activities and games improve the class III students' ability to add three digit numbers?

Plan:

Collaborators: M.B.Manjula, H.R.Ramamani & V.L.Basavaraju.

Evolution of the Plan:

- Discussion with the collaborating teachers and resource persons

Action Hypothesis:

- Use of number discs, place value related activities and games will considerably improve the class III students' understanding of place value and hence, their ability to add three digit numbers.

Act:

Change in action:

- Place value charts, flip chart, place value bundles, flash cards, number discs and 'pocket the digit' were used to make the concept of place value clear to the students.
- Individual and group activities using the above aids, addition clock and game of chest numbers were also made use of to train the students in addition of two digit and three digit numbers.

Observe:

Evidence for change:

- 34% increase in the mean scores from pre-test to post-test.
- 50% increase in the number of students scoring above 60%.
- One teacher gained confidence to teach mathematics.
- Increased participation in activities by students.
- Increase in the number of students completing homework in mathematics.

Reflect:

Findings:

- The interventions have improved the students' skill of addition.
- A clear concept of place value speeds up the acquiring of addition skill.

Validation:

- Feedback from students and collaborating teachers.
- Preparation of a teaching aid - "Pegs and slots" by a teacher not involved in the Study.
- The collaborators suitably modifying common games like musical chair and breaking the pot to teach place value.
- A teacher composing a song on addition.

Improving the skills of second standard students in reading and writing Kannada words having 'oththaksharas'

Action Researchers: H.N.Gurnanjamma, M.K.Nagaraja & Shobhakumari Ail.

Area: Kannada - Reading and writing Skills

Look:

Concern: Pupils of Second standard are able to read and write simple words, but they are unable to read and write the words having Oththaksharas.

Research Question:

- How far would the multi pronged strategy of varied presentations and activities improve the skills of the students in reading and writing Kannada words having oththaksharas?

Plan:

Collaborators: Shantha, Alfanso.D & Bhagyamma.C.

Evolution of the Plan:

- By experience.
- Discussion with colleagues and language experts
- By reading collection of nursery rhymes and a book titled "Kandaa Odhuveya" Part -2 by Smt. Thirumalamma.
- By intuition.

Action Hypothesis:

- The use of flash cards, pictures, word building games, grids and discs will improve the skills of the students in reading and writing Kannada words having oththaksharas.

Act:

Change in action:

- The strategies like reciting rhymes, picture reading, reading and writing words from charts, grids and discs to improve the skills of reading and writing of the words with Oththaksharas were employed in the classroom.
- Activities were conducted both individually and in groups.

Observe:

Evidence for change:

- The mean has increased from 48.36% in the pre-test to 60.66% in the post-test.
- As the rhymes and activities were different on each day, children were interested and their participation was more than usual.

Reflect:

Findings:

- The interventions like singing rhymes, forming words from discs, grids, charts, slips and strips have improved the skills of reading and writing Kannada words having oththaksharas.
- Participation of all the students in joyful activities was observed.
- Decrease in absenteeism.

Validation:

- Positive feedback from the students and collaborating teachers.
- Positive feedback from colleagues and language experts.

Improving the ability of class IV students to take dictation in Kannada

Action Researcher: Danappa Sajjan.
Area: Kannada

Look:

Concern: The students of class IV make mistakes while taking dictation. When asked to read whatever they have written, they read correctly even though they have written the word wrongly.

Research Question:

- How far will the use of flannel board, flash cards, the technique of peer group study and self-correction improve the students' ability to take dictation without mistakes?

Plan:

Collaborators: Ramesh, Mallikarjuna & Nandakumar

Evolution of the Plan:

- By experience.
- Discussion with colleagues and friends.
- Experience gained at the Regional Institute of English, Bangalore.
- Discussion with the Resource persons of RIEM.

Action Hypothesis:

- The use of flannel board, flash cards, the technique of peer group study and self-correction will considerably improve the students' ability to take dictation in Kannada.

Act:

Change in action:

- Teacher demonstrated the formation of letters, words and sentences on flannel board using flash cards; students followed this.
- Pair learning and self-correction technique to learn 10 words and 5 sentences.
- Self-correction by the students, comparing their own writing with the blackboard work of the teacher.

Observe:

Evidence for change:

- Decrease in mistakes committed by the students in the post-test.
- Increase in interest, participation and involvement of students.

Reflect:

Findings:

- The increase in mean by 22% from pre-test to post-test reveals that the interventions have improved the ability of students of class IV to take dictation in Kannada with less mistakes.
- 25% increase in the number of students scoring above 35%.
- There was a decrease in the number of absentees.
- Due to the intervention, even the dropout students started attending the school.

Validation:

- Positive opinions and responses of the collaborating teachers
- Satisfaction expressed by the head masters regarding the conduct of the Study.

Improving the competency of addition and subtraction among students of Class - II

Action Researchers: Devi Prasad, Geetha Manuel & Haseena Begum

Area: Mathematics

Look:

Concern: Most of the students of class II are not able to do addition and subtraction of two digit numbers correctly, especially when the problems involve carry over, borrowing or "zero".

Research Question:

- How far would the skill of the students in doing addition and subtraction be improved by the use of activity based learning involving games, individual activities, group activities and oral quiz?

Plan:

Collaborators: Mamatha, Sashikala patil & Hamsa.P

Evolution of the Plan:

- Class room experience
- Discussion with colleagues and collaborating teachers
- Intuition
- Study of MLL books

Action Hypothesis:

- The use of graded activity based learning involving games, individual activities, group activities and oral quiz will considerably improve the competency of Class II students to do addition and subtraction.

Act:

Change in action:

Introducing Games, individual activities, group activities and oral quiz in teaching addition and subtraction

Observe:

Evidence for change:

- Improvement in the performance of the students in the post-test of addition and subtraction.
- Students' active involvement in activities.

Reflect:

Findings:

- A fairly positive impact of the interventions on class II students' ability to do addition and subtraction.
- Intervention used during the Study seems to invoke interest and enthusiasm both among students and teachers.

Validation:

- A positive feedback received from students, colleagues and other teachers
- Caught the attention of the public and parents
- Statistical analysis

Improving the ability of class I students to speak in simple complete sentences

Action Researchers: K.S.Bangari, K.S.Karichannanavar & A.B.Pundalik

Area: Language - Kannada

Look:

Concern: Primary school children are not able to speak in simple complete sentences in Kannada.

Research Question:

- How far are different activities like story-telling, role-play, discussion on a given situation, simulation and use of audio-cassettes helpful in improving the ability of the students of class I to speak in simple, complete sentences?

Plan:

Collaborators: Jayashree Patil, Ratna Bagi & Shobha Paschapur

Evolution of the Plan:

- Discussion with RIEM faculty
- Discussion with colleagues and collaborating teachers

Action Hypothesis:

- A package of activities consisting of story-telling, role-play, discussion on a given situation, simulation and use of audio-cassettes is helpful in improving the ability of students of class I to speak in simple, complete sentences in Kannada.

Act:

Change in action:

- Guiding the students to tell their names, likes and dislikes in complete sentences.
- Guiding the students to discuss on a given situation in complete sentences.
- Guiding the students to ask questions on a given situation in a picture story.
- Asking students to role-play the characters of a story.
- Asking students to narrate a story.
- Simulating a situation of shopkeeper in his shop and a doctor in his clinic.

Observe:

Evidence for change:

- 23.6% increase in the mean performance in the post-test from pre-test of speaking abilities.
- 26% increase in the number of students scoring above 60%
- Improvement in the ability of students to speak in complete sentences.

Reflect:

Findings:

- The present interventions like story telling, role-play, discussion on a given situation, simulation and use of audiocassettes have improved the ability of the students to speak in simple complete sentences.

Validation:

- Feedback from the collaborators and students
- Reporting.

Improving the achievement of class IV students in Environmental Studies through activity based teaching

Action Researchers: D.B.Krishnappanavar, M.N.Mokashi & S.A.Kulkarni.

Area: EVS - II

Look:

Concern: It is revealed from previous performance that the students' achievement in EVS is not satisfactory.

Research Question:

- Does Activity Based Teaching enhance the achievement of students of Class IV in EVS - II?

Plan:

Collaborators: S.B.Hiremath, S.S.Shahapura & K.K.Talawar.

Evolution of the Plan:

- Discussion with colleagues and collaborating teachers
- Resource persons from RIEM

Action Hypothesis:

- The achievement of class IV students in EVS - II can be improved through activity based teaching.

Act:

Change in action:

- The classroom teachers changed over from traditional to activity based teaching.
- Students' role was changed from passive listeners to active participants in the activities.

Observe:

Evidence for change:

- 6.15% increase in the achievement of the students in EVS - II after the implementation of activity based teaching.

Reflect:

Findings:

- It is observed that 72.4% of students were helped by this intervention.

Validation:

- Feedback from the teachers and experts.

Improving the class III students' knowledge of the plants in their environment

Action Researchers: Madane Suryakant & Basawaraj Bhosga.

Area: EVS - II

Look:

Concern: Direct experiences were not given to the students to explore their environment.
Students were learning about plants in their environment mechanically.

Research Question:

- How far would guided exploration improve the students' knowledge of the plants in their environment?

Plan:

Collaborators: Veerayya.K, Tippanna. K & Parameswara. W

Evolution of the Plan:

- Discussion with the collaborating teachers.
- Reading and analysing required concepts from the text books
- Teaching experience and intuition

Action Hypothesis:

Guided exploration involving observation, identification, classification, collection, description and reporting will improve students' knowledge of the plants in their environment.

Act:

Change in action:

- Field experience in the form of visit to gardens, groves, fields and farms.
- Specimen collection - classifying , organising and preserving the collected specimens
- Group interactions.
- Interacting with specialists.

Observe:

Evidence for change:

- Improvement of students as noticed by their performance in post-test over that in pre-test.
- Students exhibited curiosity, enthusiasm and interest in the activities.

Reflect:

Findings:

- Guided exploration has improved the students' knowledge of plants in their environment.
- Students have benefited from the guided activities provided to them.
- Students learnt a lot from the interaction with the experts.

Validation:

- A positive feedback received from students and teachers
- Statistical analysis of quantitative data
- Feedback from the specialists.

Evaluation

PROGRAMME OUTCOMES

This unique programme commenced on 3rd August 1998 with the reading of an article " Lighted to Lighten ". Now, we are at the concluding session and it is appropriate to assess the programme outcomes. The outcome of the programme has to be decided in respect of the objectives with which it has been planned. The present ambitious programme of the DPEP, Karnataka for which RIEM (NCERT) has given academic support, envisaged the creation of **trainers** in Action Research - three in number in each of the eleven DIETs of the DPEP districts - i.e. - a total strength of 33. We have ended up with 23 - three each in Bangalore Rural, Belgaum, Dharwad, Mandya and Mysore, two each in Bidar, Bijapur and Gulbarga and one each in Bellary and Raichur. We regret the absence of staff members from Kolar DIET, though, two had attended the Orientation Programme and subsequently dropped out. So is the case with one of the staff members from Bellary.

The participants:

Of the 23 members, one faculty member from DIET, Mandya could not attend the Sharing workshop. So the evaluation of the programme is based on the responses of 22 participants only.

- The 22 participants are of age ranging from 32 years to 56 years. Of these,
  - 55% of them are above 45 years; and 45% between 32 and 45 years;
  - 64% are male and 36% female;
  - 50% are graduates and 50% post-graduates;
  - 45.4% have more than 20 years of teaching experience, 27.3% have 10 to 20 years of teaching experience and 27.3% have less than 10 years of teaching experience;
  - Only 27.3% have teaching experience at the elementary level and the remaining 72.7% at the secondary/DIET level.

Besides this, the programme involved 48 primary school teachers (as against 66 planned) and a few hundreds of students of class I to IV of about 45 schools situated mostly in the rural areas of the ten districts.

The studies:

While planning, we included the component of training the primary teachers by the DIET staff. It was planned that the primary school teachers would function as collaborators and each DIET would undertake 2 action researches. Here too we fell

short by 6 - that means only 16 action researches could be accomplished. Out of these sixteen, 8 are in the area of language (Kannada), 5 in Environmental Studies and 3 in Mathematics.

The Class-wise distribution of these Action Researches in the respective areas is as follows:

Language- Kannada - (Eight Action Researches)

Class	No	Activities	% of improvement
Class IV	1	Improving the ability of class IV students to take Dictation in Kannada	22% increase
Class III	3	Improving the ability of class III students to speak and write Kannada correctly	23% increase
		Improving the Reading Skill of Third Standard students in Kannada	24% increase
		Improving the Handwriting Skill of Class III students	Positive result
Class II	2	Improving the Skills of Second Standard students in Reading and Writing Kannada words having "Oththaksharas"	12% increase
		Improving the Fluency of second Standard students in Reading Three lettered words in Kannada	43% increase
Class I	2	Improving the Skill of Conversation in Kannada among the students of Class I	24% increase
		Improving the Skill of class I students in Reading three lettered words in Kannada	Positive result

Environmental Studies: (Five Action Researches)

Class	No	Activities	% of improvement
Class IV	1	Improving the achievement of Class IV students in EVS through Activity Based Teaching	6% increase
Class III	3	Improving the class III students' knowledge of the plants in their environment	24% increase
		Impact of Activity Based Homework on achievement of Class III students	Positive result
		Improving the Skill of Classification among the students of Class III	Positive result
Class I	1	Improving the Observation Skills among the students of Class I	18% increase

Mathematics: (Three Action Researches)

Class	No	Activities	% of improvement
Class III	2	Improving the class III students' understanding of the "Place Value"	27% increase
		Improving the class III students' ability to Add Three digit numbers	34% increase
Class II	1	Improving the competency of Addition and subtraction among students of Class II	Positive result

The improvement due to these interventions ranges from 4% to 43% as revealed by the statistical analysis. Of greater significance are the participation, interest and enthusiasm generated by these interventions among the students, teachers, Heads of the institutions and the DIET faculty.

Materials Developed:

Materials have been developed at two levels - RIEM and DIET

a) RIEM level:

- **Action Research** Training Package
- **Kriya Samshodhane** (Kannada) version -abridged
- Action Research Training Package - a supplement made available at the second phase
- A book containing an abridged version of **Sixteen Action Researches**
- A **Report** of the Programme (the present one)
- A revised " Training Package " based on the feedback received from the participants and experts on different occasions.
- A set of **Posters/ Charts** (displayed during the different phases of the programme and in the Exhibition).
- A set of **transparencies** and also **LCD materials** used for theoretical transactions during the course.
- A set of **checklists** issued at the end of each phase.
- A **Questionnaire** developed specifically for the purpose of evaluating the Programme

b) DIET level:

Bringing out the full version of Action Research Reports has been entrusted to DIETs. However, the **first draft** and the **revised draft** have been prepared in the third phase workshop of 10 days at the RIEM under the supervision of the Team. The following assistance to facilitate the DIET faculty to write the reports were extended:

- preparation of the first draft and the revised one;
- technical assistance in analyzing the data statistically;
- providing the feedback; and going through the revised draft in respect of
  (a) correct interpretation of the results of the statistical analysis; and
  (b) language

The DIET faculties have brought out the reports in the final form after discussion with the collaborating teachers and the Principals of the respective DIETs. Hence in all, there are **16 Action Research Reports - 14 of them in English and two in Kannada**.

EVALUATION OF THE PROGRAMME

(Note: The figures given are in percentage)

▪ **Objectives of the Course**		
	Idealistic	4.5
	Realistic but not practicable	0
	Realistic and practicable	95.5
▪ **Objectives of the course were**		
	Attained with difficulty	64
	Attained without difficulty	36
	Not at all attained	0
▪ **Course Length**		
	About right	68.5
	Too Short	27
	Too long	4.5
▪ **Content coverage**		
	Adequate	91
	Too little	4.5
	Too much	4.5
▪ **Quality of the Training Package was**		
	To the expected level	64
	Below the expected level	4.5
	Superior	31.5
▪ **Strategies followed by the RPs in presenting the content were simple and effective in**		
	Most of the topics	69.5
	Some of the topics	30.5
	None of the topics	0
▪ **The adoption of these packages by the DIETs in preparing and conducting the programme will be**		
	Effective but difficult	45
	Simple and effective	55
	Not effective	0
▪ **Interaction among participants and RPs were lively and informative**		
	Most often	82
	Some times	18
	Not at all	0
▪ **Arrangement of work session was**		
	Adequate	64
	Moderately adequate	36
	Inadequate	0
▪ **Use of visual aids during the programme**		
	Adequate	77.5
	Too little	22.5
	Too much	0
▪ **Rating of the course as a whole**		
	Excellent	19
	Very good	45
	Good	31.5
	Fair	4.5
	Poor	0

Analysis:

Here we have to describe in unambiguous terms - what our products are and what they are capable of doing. But we have not conducted a pre-test and a post-test in order to assess the academic gain by the participants. However, a questionnaire developed specifically for the purpose of evaluating the programme was administered to get the feedback from the participants at the end of the programme. The data pertaining to the participants' evaluation of the programme in terms of its objectives, course length, content coverage, quality of the training packages, strategies followed etc., when analysed gave the following results:

- 95.5% of the participants felt that the objectives of the course are **realistic and practicable** and 4.5% felt that they are **idealistic**, with no takers for the third option **realistic but not practicable**.

- Regarding the attainment of course objectives, 36% felt that the objectives have been **attained without difficulty**, while 64% viewed that they have been **attained with difficulty;** again no takers for the option **" not at all attained "**.

- Regarding the Course length, 68.5% felt that it is **about right**; 27% **too short** and 4.5% **too long**.

- 91.0% participants viewed content coverage as adequate, while 4.5% found it **too little** and another 4.5% **too much**.

- 64% found the quality of the training package to the **expected level**; 31.5% as **superior** and 4.5% as **below the expected level**.

- With regard to the strategies followed by the team in presenting their content, 59.5% felt that they were simple and effective in **most of the topics** and 30.5% felt that it was so only in **some of the topics,** with no takers for the third option **none of the topics**.

- 55% of the participants expressed that the adoption of these packages by the DIETs in conducting the training programme would **be simple and effective**, while 45% felt that this would be **effective but difficult**, with no takers for the third option **not effective**.

- 82% opined that most often the interaction among participants and RPs was **lively and informative**. Only 18% felt that it was so only **sometimes**, with no takers for the third option **not at all**.

- As regards arrangement of work sessions, 64% viewed it as **adequate,** 36% as **moderately adequate** with no one opting for **inadequate**.

- Use of visual aids for transaction during the programme was considered as **adequate** by 77.5%, while 22.5% felt it as **too little** and none opted for **too much**.

- On the whole, 19% rated the programme as **excellent**; 45% as **very good,** 31.5% as **good,** 4.5% as **fair** and no one viewed it as **poor**.

Conclusion:

The above facts help us to infer that the training programme had the desired effect and the set objectives were accomplished. Thus we conclude that these participants now have a good understanding of the concept of Action Research and possess the necessary competence in training the other functionaries at the grassroots. So the team is confident that these participants, if called upon by the administration to provide training in Action Research, are capable of successfully discharging their pace-setting role and finding local solutions to local problems.

Further, the participants have been made aware of the shortcomings in the investigations carried out by them during this programme and the possible ways in which they could be improved. So they may do better than what has been accomplished during this programme. What is needed on their part is further reflection on this concept as **Action Research is a cyclic process**.

Annexure

Questionnaire

REGIONAL INSTITUTE OF EDUCATION (N C E R T)
MYSORE -570 006

Project : ACTION RESEARCH

Dear Participant,

We are happy to welcome you to this project and your active association would go a long way in making this a more meaningful and purposeful activity. Enclosed please find herein a few leaflets, work schedule and a questionnaire. Kindly fill-in the questionnaire and pass it on to us within a WEEK's time. This would enable both of us to plan and act within a time frame. You may in turn communicate to the identified elementary school teachers regarding the " Level II : Programme - 1 " (11^{th} - 13^{th} Aug 1998).

The State Project Director, DPEP, Karnataka State will give you direction regarding TA, DA and other funds. Accommodation will be arranged for you in Narmada Hostel, RIE Campus, Mysore during the days of workshop at prevailing rates.

Looking forward to your active participation in this joint venture.

Yours faithfully,

(A.S.N.Rao Sindhe)
Programme Coordinator

REGIONAL INSTITUTE OF EDUCATION (N C E R T)
MYSORE -570 006

QUESTIONNAIRE

INSTRUCTION: Kindly fill-in this questionnaire and mail it to Dr. A.S.N.Rao Sindhe, Programme Co-ordinator, Regional Institute of Education, Manasagangothri, Mysore - 570 006 latest by 15 July 1998.

Part I

Name : ..... Sex: M F
Designation : .....
Address :

Office	Residential
.....	.....
.....	.....
.....	.....

Phone :.....

Educational Qualification :
General .....
Professional .....

Teaching experience :

LEVEL	POST HELD	FROM	TO
Elementary			
Secondary			
DIET			

Training received by you during the past THREE years

YEAR	PROGRAMME	PLACE	DURATION
1997-98			
1996-97			
1995-96			

Have you carried out any action research in your DIET ? Yes No
If "Yes" give the titles (Enclose the abstracts of the same)

SL.NO	TITLE
1	
2	

Do you have the knowledge of typing ? Yes No

Do you have the knowledge of Computer ? Yes No
If "Yes" are you familiar with " MS Word and MS Excel " ? Yes No

Part II

Kindly identify 4-6 Elementary school teachers of your district who will be involved by you in the Project " ACTION RESEARCH". For the training at the Level - II, you please select teachers who :

- have enthusiasm / interest in taking up the Action research work;
- have the capacity to carryout the work independently;
- have the adequate oral/written communication skills for interaction with your team;
- preferably have the knowledge of typing both in Kannada and English ;
- will attend all the programmes that you organise during the next 90 days and involve themselves in all the activities of the project;
- will help you in collecting, organising, entering and editing the data;
- will help you in the preparation of the reports;
- will diligently maintain the documents (questionnaire, anecdotal records, diaries, etc.,); and
- will adhere to the time schedule

SL.NO	NAME OF THE TEACHER	ADDRESS
1		
2		
3		
4		
5		
6		

Part III

List out the problems identified by you for the Action Research in the **order of priority**

PROBLEM IDENTIFIED

Time Schedules

TRAINING THE DIET FACULTY OF KARNATAKA STATE IN CONDUCTING ACTION RESEARCH

PHASES	ACTIVITIES	PERIOD / DATES
Phase: I RIEM (Level –1)	Preparation & Planning Resource Persons' Workshop (2 days) Orientation Programme (5 days)	June –July 1998 21st – 22nd July 1998 3rd - 7th August 1998
Phase: II RIEM (Level –1)	Workshop – I (5 days)	18th- 22nd August 1998
Phase: III RIEM (Level –1)	Workshop – II (10 days)	6th – 15th October 1998
Phase: IV RIEM (Level –1)	Sharing Workshop (3 days) Finalisation of the products	4th – 6th November 1998 20th November.1998

PHASES	ACTIVITIES	PERIOD / DATES
Phase: I DIETs (Level- 2)	Programme - I (3 days)	11th- 13h August 1998
Phase: II DIETs (Level- 2)	Programme –II (35 days) <u>Action Research in Action</u> AR Cycle 1 : 6 days AR Cycle 2 : 6 days AR Cycle 3 : 6 days Data Organisation; Entering data on computers(9 days)	26th Aug – 29th Sept 1998 26th Aug – 1st Sept 1998 4th – 10th Sept 1998 14th – 19th Sept 1998 21st – 29th Sept 1998
Phase: III DIETs (Level- 2)	Programme –III Finalisation of drafts and sharing their views (6 days)	26th– 31st October 1998

REGIONAL INSTITUTE OF EDUCATION (NCERT), MYSORE - 570 006

Project: TRAINING THE DIET FACULTY OF KARNATAKA STATE IN CONDUCTING ACTION RESEARCH

Programme: Resource Persons' Workshop - **21st and 22nd July 1998**

First Day: 21.07.1998 (10:00 to 17:00 Hours)

Welcome and Introduction :	Dr.Upadhyaya.B.S	05 minutes
Why Action Research & Why training DIETs:	Mr,Parthasarathy Raju.M.V	15 minutes
DPEP-RIEM collaboration :	Dr.Prasad.S.N	15 minutes
Project - Purpose & Process:	Dr.Vasishtha.K.K	15 minutes
Plan of Action:	Dr.A.S.N.Rao Sindhe	15 minutes
TEA BREAK		
Keynote Address	Dr.Nayar.P.R	30 minutes
Briefing Sessions:		
Look	Mrs.Sarada. B	10 minutes
Plan	Mr.Satheesh.H.L	10 minutes
Act & Observe	Mr.Lakshminarayana. U	10 minutes
Reflect	Mrs.Shamala.S.K	10 minutes
LUNCH		
Discussion on the briefing sessions	Experts & Team	75 minutes
TEA BREAK		
Finalisation of points for Panel discussion AR Samples + Supplementary materials	Experts & Team	75 minutes

Second Day: **22.07.1998 (10:00 to 17:00 Hours)**

Problems and issues in Primary Education	Dr.Nayar.P.R Dr.Prasad.S.N Mr,Parthasarathy Raju.M.V Dr.Vasishtha.K.K	50 minutes
Finalisation of the materials for Orientation Workshop	Experts & Team	15 minutes
TEA BREAK		
Finalisation of activities and responsibilities for Orientation Workshop Finalisation of the materials for Workshop I and Workshop II	Experts & Team	75 minutes
LUNCH		
Finalisation of activities and responsibilities for Workshop I and Workshop II Sharing Workshop - What and How.	Experts & Team	75 minutes
TEA BREAK		
Finalisation of the contents of the Project Products	Experts & Team	75 minutes
Handing over of the drafts with observations and suggestions		10 minutes

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REGIONAL INSTITUTE OF EDUCATION (NCERT), MYSORE – 570 006

TRAINING THE DIET FACULTY OF KARNATAKA STATE IN CONDUCTING ACTION RESEARCH

ORIENTATION PROGRAMME

DATE	10.00 -11.15 HRS	11.30 - 13.00 HRS	14.00 -15.15 HRS	15.30-17.00 HRS.
3-8-98	Registration,Welcome Introduction (BSU) The Course of Training (ASN)	Action Research (P.R.Nayar)	Problems and issues in Primary Education(KKV)	Panel Discussion (BS/SKS/ULN/GPB /PRR)
4-8-98	Concern & Research questions (BS) Planning for Action Research(HLS)	Study –1 (HSS) Study-2 (SKS)	Group Work: Selecting & defining problem	DIET-wise presentation of the selected problems CP: DNN
5-8-98	Act and Observe(ULN) Reflecting & re-planning in Action research(SKS)	Study –3 (RRE) Study –4 (MS)	Group Work : Proposal -1	
6-8-98	DIET-wise Presentation of the proposal -1 CP: BSU/PRR		Group Work : Proposal -2	
7-8-98	Computers in Action Research (SNP)	DIET-wise Presentation of the proposal -2 (HLS/GPB) Plan of the Workshop -I (PRR)		Wrap-up session (HLS/SB/BSU/ASN /DNN)

SL.NO	GROUP	PERSON-IN-CHARGE
1	DIET-1	A.S.N.Rao Sindhe
2	DIET-2	D.N.Nagaraju
3	DIET-3	S.K.Shamala
4	DIET-4	S.Bhashyam
5	DIET-5	H.L.Sateesh
6	DIET-6	U.Lakshminarayana
7	DIET-7	G.P.Basavaraj
8	DIET-8	P.Ramachandra Rao
9	DIET-9	B.Sarada
10	DIET-10	B.S.Upadhya
11	DIET-11	U.Laksminarayana

REPORTERS

DATES	REPORTERS	CONSOLIDATION
3-8-98	H.L.Sateesh	D.N.Nagaraju
4-8-98	U.Lakshminarayana	
5-8-98	S.Bhashyam	
6-8-98	B.S.Upadhya	
7-8-98	S.Bhashyam	

REGIONAL INSTITUTE OF EDUCATION (NCERT), MYSORE – 570 006

TRAINING THE DIET FACULTY OF KARNATAKA STATE IN CONDUCTING ACTION RESEARCH

LEVEL :1 WORKSHOP - I

DATE	10.00 -11.15 HRS	11.30 - 13.00 HRS	14.00 -15.15 HRS	15.30-17.00 HRS.
18-8-98	Tool Development & Activity - B (BS & HLS)	DIET-wise presentation of Action Research (**Activity -1**) and Feedback (CP:PRNayar/HLS/BSU)		
19-8-98	Activity -C & T (PRR) Onentation to field work (SKS)	DIET-wise presentation of Action Research (**Activity -2**) and Feedback (CP:SB/SKS/DNN)		
20-8-98	Analysis , interpretation & Reporting (PRNayar)	Introduction to MS WORD (DNN)	Hands on experience in groups - MS WORD	
21-8-98	Group Work: Tool Development	Introduction to MS EXCEL (DNN)	Hands on experience in groups - MS EXCEL	
22-8-98	Group Work: Tool Development	DIET-wise presentation of tools CP: ULN/BSU/HLS)		Plan of the Workshop -II (SB) and Wrap up session(BSU/SKS/ BS/DNN)

Note: Reporting of each session's activity will be done by the DIET Faculty

REPORTERS

DATES	REPORTERS	CONSOLIDATION
18-8-98	DIET 1 and 2	D.N.Nagaraju
19-8-98	DIET 3 and 4	
20-8-98	DIET 5 and 6	
21-8-98	DIET 7 and 8	
22-8-98	DIET 9 and 10	

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TRAINING THE DIET FACULTY OF KARNATAKA STATE IN CONDUCTING
ACTION RESEARCH

LEVEL :1 WORKSHOP - II

DATE	10.00 -11.15 HRS	11.30 - 13.00 HRS	14.00 -15.15 HRS	15.30-17.00 HRS
6-10-98	Analysis & interpretation (PRN/ ULN)	Report writing (KKV/BS) Group Work	Group Work	
7-10-98	Group Work			
8-10-98	Group Work			
9-10-98	DIET-wise **presentation of the report** (**Activity - 1**) : **7 DIETs** CP: DNN/ASN /PRR)			Feed back BS/ULN/ HLS
10-10-98	**Preparation of abridged versions - Activity -1**			
11-10-98	Group Work			
12-10-98	Group Work			
13-10-98	**Presentation of report** (Bidar and Bijapur DIETs) CP: BSU	Group Work		
14-10-98	DIET-wise **presentation of the report** (**Activity - 2**) : **7 DIETs** CP: SKS/SB/HLS			Feed back DNN/BS/ ULN
15-10-98	**Preparation of abridged versions - Activity -2**			Wrap up session BSU/SKS/DNN/BS

Note: **Group work** - Analysis, Interpretation, Library work and Report writing

Reporting of each session's activity will be done by the DIET Faculty

REPORTERS

DATES	REPORTERS	CONSOLIDATION
6-10-98	Bangalore DIET	D.N.Nagaraju
7-10-98	Belgaum DIET	
8-10-98	Bellary DIET	
9-10-98	Bidar DIET	
10-10-98	Bijapur DIET	
11-10-98	Dharwad DIET	
12-10-98	Gulbarga DIET	
13-10-98	Mandya DIET	
14-10-98	Mysore DIET	
15-10-98	Raichur DIET	

REGIONAL INSTITUTE OF EDUCATION (NCERT), MYSORE – 570 006

TRAINING THE DIET FACULTY OF KARNATAKA STATE IN CONDUCTING ACTION RESEARCH

SHARING WORKSHOP

DATE	10.00 -11.15 HRS	11.30 - 13.00 HRS	14.00 -15.15 HRS	15.30-17.00 HRS.
4-11-98	Registration Welcome (BSU) **Release of abridged version**	Presentations { Mysore B'lore(Rural) Belgaum Bellary Bidar } followed by discussion **20 minutes each**	Presentations { Dharwad Gulbarga Mandya } followed by discussion **20 minutes each**	Programme Evaluation **Exhibition arrangements**
5-11-98	Inauguration of the exhibition **EXHIBITION** (Interaction with DIETs)	Presentations { Raichur Bijapur Mandya Gulbarga Dharwad } followed by discussion **20 minutes each**	Presentations { B'lore(Rural) Belgaum, Mysore } followed by discussion **20 minutes each**	**Views and opinions** of collaborating teachers by each DIET **9 minutes each**
6-11-98	Welcome(BSU) How we did (ASN) Team's Approach(BS) **Experts view** (PRN & KKV)	**Exhibition** **(20 minutes)** Presentation of **two** abridged version **(20 minutes)** DPEP & DIETs **" Future Action "**	Programme outcomes (PRR) **10 minutes** Address: MHRD(1) & DPEP officials(2) **15-20 minutes each** Vote of thanks (ASN)	**DIET-wise plan** and submission of the same to DPEP officials Packing of exhibited articles

Reporting of each session's activity will be done by the DIET Faculty

DATES	REPORTERS				CONSOLIDATION
	Session 1	Session 2	Session 3	Session 4	
4-11-98	Bangalore	Belgaum	Bellary	Bidar	D.N.Nagaraju
5-11-98	--	Mysore	Bijapur	Mandya	
6-11-98	Gulbarga	Raichur	Dharwad	--	

Guidelines for Fieldwork

REGIONAL INSTITUTE OF EDUCATION (NCERT),MYSORE -570 006.

Activities for participants:

1. Identify the need for understanding research by the DIET faculty.
2. State the situations (from the elementary level of education) where action research can be used.
3. List the advantages of action research for teachers and teacher educators
4. State the rationale for understanding action research.
5. Identify the local problems specific to the target group under your DIET for undertaking action research.
6. Identify the problems in view of DIETs' goals of UPE for conducting action research.
7. Select the problems and prepare a research design for conducting action research.
8. Formulate strategies for the identification and field testing of innovative practices and success stories.
9. Draw up a plan of action for the dissemination of research implications and their use by elementary school teachers in your district.

ಪ್ರಾದೇಶಿಕ ಶಿಕ್ಷಣ ಸಂಸ್ಥೆ ಮೈಸೂರು - ೫೭೦ ೦೦೬

ಕ್ರಿಯಾ ಸಂಶೋಧನೆ ಕೈಗೊಳ್ಳಲು DPEP ಜಿಲ್ಲೆಗಳ DIET ಸಿಬ್ಬಂದಿಗೆ ತರಬೇತಿ ಕಾರ್ಯಕ್ರಮ

ನೀವು ಮುಂದಿನ ವಾರದಲ್ಲಿ (೯.೮.೯೮ ರಿಂದ ೧೬.೮.೯೮ರ ಒಳಗೆ) ಮಾಡಬೇಕಾದ ಕಾರ್ಯಗಳ ತಾಳೆಪಟ್ಟಿ

೧. ನಿಮ್ಮ ಜಿಲ್ಲೆಯ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಬರುವ ಆರು ಪ್ರಾಥಮಿಕ ಶಾಲಾ ಶಿಕ್ಷಕ/(ಶಿಕ್ಷಕಿಯ)ರನ್ನು ಗುರುತಿಸಿ
೨. ಈ ಕಾರ್ಯಕ್ರಮದಲ್ಲಿ ಭಾಗವಹಿಸುತ್ತಿರುವ ನಿಮ್ಮ DIETನ ಸಹೋದ್ಯೋಗಿಗಳು ಮತ್ತು ನೀವು ಗುರುತಿಸಿರುವ ಆರೂ ಶಿಕ್ಷಕರ ಒಂದು ಸಭೆ ಕರೆಯಿರಿ. (೧೧.೮.೯೮ರಿಂದ ೧೩.೮.೯೮ರವರೆಗೆ)
೩. ಆ ಸಭೆಯಲ್ಲಿ ಕ್ರಿಯಾ ಸಂಶೋಧನೆ ಬಗ್ಗೆ ಎಲ್ಲಾ ಸಹಭಾಗಿಗಳಿಗೆ ಅಗತ್ಯವಿರುವ ಮಾಹಿತಿ ನೀಡಿ.
೪. ನಿಮ್ಮ ತಂಡದಲ್ಲಿರುವ ಶಿಕ್ಷಕರು ಅವರವರ ತರಗತಿಗಳಲ್ಲಿ ಯಾವ ಯಾವ ಶೈಕ್ಷಣಿಕ ಸಮಸ್ಯೆ/ಕಾಳಜಿಗಳನ್ನು ಹೊಂದಿದ್ದಾರೋ ಅವನ್ನು ಪಟ್ಟಿ ಮಾಡಿ.
೫. ನಿಮ್ಮ ತಂಡ ಗುರುತಿಸುವ ಶೈಕ್ಷಣಿಕ ಸಮಸ್ಯೆ/ಕಾಳಜಿಗಳನ್ನು ಆದ್ಯತೆಯ ಕ್ರಮದಲ್ಲಿ ಪಟ್ಟಿ ಮಾಡಿ.
೬. ಅವುಗಳಲ್ಲಿ ತಂಡದ ಪರಮಾದ್ಯತೆಯ ಎರಡು ಸಮಸ್ಯೆ/ಕಾಳಜಿಗಳನ್ನು ಕ್ರಿಯಾ ಸಂಶೋಧನೆಗೆ ಆಯ್ದುಕೊಳ್ಳಿ.
೭. ನೀವು ಕೈಗೊಳ್ಳಲಿರುವ ಎರಡು ಅಧ್ಯಯನಗಳಿಗೆ, ಪ್ರತಿಯೊಂದಕ್ಕೂ ಮೂರು ಶಿಕ್ಷಕರಂತೆ, ತಂಡವನ್ನು ನಿರ್ಧರಿಸಿ.
೮. ಪ್ರತಿಯೊಂದು ಅಧ್ಯಯನ ಕುರಿತಂತೆ ರೂಪುರೇಷೆಗಳು, ಕಾರ್ಯತಂತ್ರಗಳು, ಗುರಿಗಳು, ಉದ್ದೇಶಿತ ಬದಲಾವಣೆಗಳು - ಇವೇ ಮೊದಲಾದ ಅಂಶಗಳನ್ನು ಸಹಭಾಗಿಗಳೊಂದಿಗೆ ಚರ್ಚಿಸಿ ನಿಮ್ಮತ್ತಕ್ಕೆ ಬನ್ನಿ.
೯. ಚರ್ಚೆಯಲ್ಲಿ ಬರುವ ಒಟ್ಟಭಿಪ್ರಾಯಗಳನ್ನು ಕೊಟ್ಟಿರುವ ನಮೂನೆಯಲ್ಲಿ ಭರ್ತಿ ಮಾಡಿ. ಪ್ರತಿಯೊಂದು ಅಧ್ಯಯನದ ವಿವರಗಳನ್ನು ಪ್ರತ್ಯೇಕ ನಮೂನೆಗಳಲ್ಲಿ ಸ್ಪುಟವಾಗಿ ಬರೆಯಿರಿ. ಅದರ ಒಂದು XEROX ಪ್ರತಿ ಮಾಡಿಸಿಟ್ಟುಕೊಳ್ಳಿ.
೧೦.ನಿಮ್ಮ ತಂಡದಲ್ಲಿರುವ ಸಹಭಾಗಿ ಶಿಕ್ಷಕರು ಕೆಲಸ ಮಾಡುತ್ತಿರುವ ಶಾಲಾ ಮುಖ್ಯಸ್ಥರನ್ನು ಭೇಟಿ ಮಾಡಿ ಉದ್ದೇಶಿತ ಕಾರ್ಯಕ್ರಮದ ಬಗ್ಗೆ ಮಾಹಿತಿ ನೀಡಿ ಅಗತ್ಯವಿರುವ ಅನುಮತಿ ಪಡೆಯಿರಿ.

೧೪.೮.೯೮ರಂದು ಆರಂಭವಾಗುವ ಕಾರ್ಯಾಗಾರಕ್ಕೆ ಬರುವಾಗ ಈ ಕೆಳಗಿನವುಗಳನ್ನು ತರಬೇಕು

೧. ಸಹಭಾಗಿ ಶಿಕ್ಷಕ/ಶಿಕ್ಷಕಿಯರ ಹೆಸರು ಮತ್ತು ಪೂರ್ಣ ವಿಳಾಸ
೨. ಎರಡೂ ಅಧ್ಯಯನಗಳ ಪ್ರಸ್ತಾವನೆಗಳು (ನಿಮಗೆ ಕೊಟ್ಟಿರುವ ನಮೂನೆಯಲ್ಲಿ ಪ್ರತ್ಯೇಕವಾಗಿ ಬರೆದಿರಬೇಕು). ಪ್ರತಿಯೊಂದು ಪ್ರಸ್ತಾವನೆಯ ಎರಡು ಪ್ರತಿಗಳನ್ನು ತರಬೇಕು.
೩. ಕ್ರಿಯಾ ಸಂಶೋಧನೆ ಕೈಗೊಳ್ಳಲಿರುವ ಶಾಲೆಯ ವಿವರಗಳು.
೪. ನಿಮ್ಮ ಅಧ್ಯಯನಕ್ಕೆ ಸಂಬಂಧಪಟ್ಟ ಪಠ್ಯಪುಸ್ತಕಗಳು, ಆಕರ ಗ್ರಂಥಗಳು,ಇತ್ಯಾದಿ.
೫. ನಿಮ್ಮ ತಂಡ ಕೈಗೊಂಡಿರುವ ಕ್ರಿಯಾ ಸಂಶೋಧನೆಯಲ್ಲಿ ಉಪಯೋಗಿಸಲು ಬಯಸುವ ಸಲಕರಣೆಗಳು/ಸಾಧನಗಳು ಮತ್ತು/ಅಥವಾ ಅದಕ್ಕೆ ಸಂಬಂಧಪಟ್ಟ ವಿವರಗಳು.
೬. ಕಲಿಕೆಯ ಕನಿಷ್ಠ ಮಟ್ಟಗಳ ಪಟ್ಟಿ (ಅವು ಲಭ್ಯವಿದ್ದಲ್ಲಿ)
೭. ಎರಡು ೩.೫ ಇಂಚಿನ ಫ್ಲಾಪಿ ಡಿಸ್ಕ್‌ಗಳು.
೮. ಈ ಕಾರ್ಯಕ್ರಮದಲ್ಲಿ ಕೊಟ್ಟಿರುವ ಎಲ್ಲಾ ಶೈಕ್ಷಣಿಕ ಸಾಮಗ್ರಿಗಳು (ಕೈಪಿಡಿ ಮೊದಲಾದುವು)

ಸೂಚನೆ: ನಿಮ್ಮ ಕಾರ್ಯತಂಡದ ಸದಸ್ಯರನ್ನು (DIET ಸಿಬ್ಬಂದಿಯೂ ಸೇರಿದಂತೆ) ಮಧ್ಯೆ ಮಧ್ಯೆ ಬದಲಾವಣೆ ಮಾಡಲು ಅವಕಾಶವಿರುವುದಿಲ್ಲ. ದಯವಿಟ್ಟು ಸಹಕರಿಸಿ.

IN THE FIELD

Phase: II **Level: 2**

24-08-1998:	Contact the collaborating teachers. Appraise the Heads of the collaborating schools of this project.
26-08-1998:	Appraise the collaborating teachers of the implementation of the new practice, tools and data collection. Prepare, in cooperation with the teachers, any aids, if necessary. Hand over one copy of activity sheet T to each teacher with necessary instructions for filling the same.
27-08-1998 TO : 31-08-1998	Each faculty member may visit one school on any one day, if so desired by the teacher.
01-09-1998:	Discuss with the teachers the actions taken by them in the first week. Review the plan in the light of their observations and experiences. Make slight modifications in the plan, if necessary. Prepare, in cooperation with the teachers, any aids, if necessary.
04-09-1998 TO : 09-09-1998	Each faculty member may visit one school on any one day, if so desired by the teacher.
10-09-1998:	Discuss with the teachers the actions taken by them in second week. Review the plan in the light of their observations and experiences. Make slight modifications in the plan, if necessary. Prepare, in cooperation with the teachers, any aids, if necessary.
14-09-1998 TO : 18-09-1998	Each faculty member may visit one school on any one day, if so desired by the teacher.
19-09-1998:	Discuss with the teachers the actions taken by them in the third week. Analyse, to the extent possible, the impact of the research. Collect the teachers' opinions and suggestions regarding the research. Collect the duly filled in activity sheets T from the teachers. Fill up activity sheet C (in English) with the help of the teachers. (This will be presented by you at RIEM during workshop II.) See that there are two copies of activity sheet C for each action research.
21-09-1998 TO : 29-09-1998	Data entry in MSExcel.
06-10-1998:	Attend the workshop at RIEM with the following materials: Activity sheets T (duly filled by all the six teachers), B and A. Completed activity sheet C (two copies for each action research). Tools and aids prepared by your team. Answer papers of the students in case of written tests, duly filled in questionnaires, schedules, etc. Data - in the floppy as well as 2 print-outs. Training package, MLL book, relevant textbooks, empty floppy, etc.

REGIONAL INSTITUTE OF EDUCATION (NCERT)
MYSORE - 570006

Remember the following points when you bring your ACTION RESEARCH information/data to Regional Institute of Education, Mysore

GENERAL:

Always work with your Team and try to resolve your problems through discussion.

Thoroughly check your Floppies before you bring it to RIEM.

We will not be able to help you if it has VIRUS, so your floppies should be free from VIRUS.

Better to bring the cleaned data/ information. This will help us to help you.

Only when the data/ information are complete it is possible for us to help you in ANALYSIS. RIEM will help you only in analysing the *cleaned data* and assist you in doing the INTERPRETATION and writing the REPORT.

Always get the HARD COPY(PRINT OUT) of the information/data.

Information:

Type the running matter in **MS WORD** Programme by specifying *your DIET* and *ACTION RESEARCH Number* clearly so that it will be easier for the identification.

Better have separate diskettes for different ACTION RESEARCH.

Always it is better to bring the same information on TWO FLOPPIES along with TWO HARD COPIES.

It is better to type separate paragraph for different ideas.

Data

Type the numerical data on MS EXCEL Programme by specifying your DIET and ACTION RESEARCH Number clearly so that it will be easier for the identification.

Better to have *separate sheets* for different data (Eg: Pre-test and Post-test separately) in the same WORK BOOK.

See that the data is entered properly and correctly under each head. Always check once to ensure that you have not left out any data or entered wrongly.

Categorisation** of information* gathered and ***finlising the codes for the data that you have collected (*Remember this is very important if you want your data to be processed quickly and kept ready for the next task*)

Experience help in deciding on categorisation of information and other elements while assigning codes

Finalisation of Codes:

CONVERT all the ***verbal responses*** to ***numerical values.*** Then assign the codes.

Here are some examples to help you in coding

	Verbal response		Code
Eg.1:	*Yes/ No*		2/1 or 1/ 0
Eg.2:	*Yes/Undecided/ No*		2/1/0
Eg.3:	Class intervals (*Age, Scores*)	11 - 15 16 - 20 21 – 25	1 2 3
Eg.4:	Gender: *Boy/Girl*		1/2
Eg.5:	**Multiple choice item**; *Statement* (a/b/c/d) or (i,ii, iii and iv) If 'b' or 'ii' is the correct answer or KEY then enter '**1**' for the correct and if it is wrong then enter '0(Zero)'		1 -correct 0 – wrong response
Eg.6:	Scale: (5 point) Strongly Disagree ... Strongly Agree		1 ... 5

REGIONAL INSTITUTE OF EDUCATION (NCERT), MYSORE – 570 006

TRAINING THE DIET FACULTY OF KARNATAKA STATE IN CONDUCTING ACTION RESEARCH

Guidelines for the DIET faculty

Phase III **Level II**

26-10-1998 to 31-10-1998 **Finalisation of draft**

- Prepare the final draft of the Report of each activity incorporating suggestions given in the feedback sessions.
- Get each Report typed/edited and bound separately

Sharing the views

- Disseminate your experiences of Action Research at the DIET level.
- The mode and target of this dissemination may be finalised in consultation with the DIET Principal in the light of the brainstorming session held on 15-10-1998 at RIE, Mysore.
- During the sharing workshop, the opinions / views / suggestions of the collaborating teachers and other participants may be recorded to facilitate your presentation of the same in the next workshop (4-11-98 to 6-11-98) at RIEM.

04-11-1998 **Attend the workshop at RIEM with the following materials:**

- **Four** bound copies of the Report of **each** of your activities (2 for DPEP, 1 for RIEM and 1 for NIE).
- **One** floppy containing the final Report of **each** activity.
- Materials for **a 15 minute presentation of each** of your activities at RIEM (Charts/Posters, etc.,).
- Materials for the exhibition at RIEM

Date:15.10.1998
Mysore

Programme Co-ordinator

Formats

REGIONAL INSTITUTE OF EDUCATION
MYSORE 570 006.

ACTIVITY SHEET

Address of the DIET : .....
.....

District code : [ ]

Names of the DIET faculty :
1. .....
2. .....
3. .....

Title of the project :

Area : .....

Look

Concern :

Research questions :

Plan

Collaborators :

Evolution of the plan :

Objectives :

……
……
……
……
……

Proposed change in action :

Action hypotheses :

……
……
……
……
……
……

Methodology :

* Target group

* Techniques &Tools

* Procedure/Detailed Action Plan

* Recording procedures

* Time schedule

* Cost estimation Rs Ps

1.....
2 .....
3 .....
4 .....
5 .....
6 .....
Total :

Follow-up Action

What you are supposed to do

- Try out the action strategy, have discussion, try to reflect in your small group, list out the modifications;
- Prepare a brief report which has to be presented in the next workshop.

Guideline for ACTIVITY SHEET - B

Target group : Students of which class and which school.

Techniques and/or tools : List the techniques and/or tools you want to use in this action research.

Techniques /tools	***Relevant aspects of assessment***
Written test	Scholastic achievement
Oral test	Oral expression, functional understanding related to practical work, assignments, etc.
Performance test	Practical/project work
Observation	Home tasks, classroom participation and all character building qualities
Interview	Behaviour problems
Checklist	Health habits, study habits, work habits, process or performance
Anecdotal record	Significant achievements or inadequacies in performance and for record of observations
Student products	Understanding of the related knowledge, proficiency in skills, creative expression, interests, drawing skills, etc.
Record cards	Sequential record of students' progress over a period, student's profile, class profile, etc.
Rating scale	Personal and social qualities
Questionnaire	Information and opinions
Schedule	Information and opinions
Sociometry	Social relationship amongst students
Diary	Behaviour

Recording Procedures:

By whom to be recorded	Students/Teachers/Observer/Expert
When	Beginning and ending, During the course, etc.
How	Paper-pen / Tape recording

Time Schedule : Actual dates for each activity like pre-test, implementation of the various new practices, post-test, etc.

The tool / the technique : Write down the test, opinionnaire, schedule, etc., prepared by you. (You may attach additional papers.)

ACTIVITY SHEET - B

District Code : ( )

Title of the Action Research:

Details of the Plan :

Target group :

Techniques & tools :

Recording procedures:

Time schedule :

The tool/ the technique :

ACTIVITY SHEET - C

Name of the District : .....

District Code : ( )

Title of the Action Research :

.....

.....

DIET Faculty :

1. .....
2. .....
3. .....

Schools :

		School 1	*School 2*	*School 3*
Name & location of the school				
Name of the collaborating teacher				
Target Group	No. of Boys			
	No. of Girls			
	Total			

Consolidated account of action and observation:

(Write down a brief account of the actions taken and the observations made in all the three schools during the first week. This should be followed by the outcomes of the discussions and review with the collaborating teachers on the sixth day. Mention any changes in the plan suggested and why. Likewise, write down the consolidated account for the second and third weeks also. Please, attach additional papers.)

ACTIVITY SHEET - T

District Code : ( )

Name of the Teacher : .....

Class : .....

School : .....

Title of the Action Research :

.....

.....

DAY	DATE	ACTION TAKEN	OBSERVATION MADE
1	26-08-1998	Appraisal of tools & techniques by the DIET faculty	
2	27-08-1998		
3	28-08-1998		
4	29-08-1998		
5	31-08-1998		
6	01-09-1998	Discussion & review with the DIET faculty	

DAY	DATE	ACTION TAKEN	OBSERVATION MADE
7	04-09-1998		
8	05-09-1998		
9	07-09-1998		
10	08-09-1998		
11	09-09-1998		
12	10-09-1998	Discussion & review with the DIET faculty	

DAY	DATE	ACTION TAKEN	OBSERVATION MADE
13	14-09-1998		
14	15-09-1998		
15	16-09-1998		
16	17-09-1998		
17	18-09-1998		
18	19-09-1998	Discussion & review with the DIET faculty	

Comments/Views

Signature of the Teacher: .....

Regional Institute of Education
Mysore - 570006

Abridged version of the Report of the Action Research

Title

Address of the DIET	:	.....
Names of the DIET faculty	:	1. .....
		2. .....
		3. .....
Area	:	.....

LOOK

Concern

Research Questions

PLAN

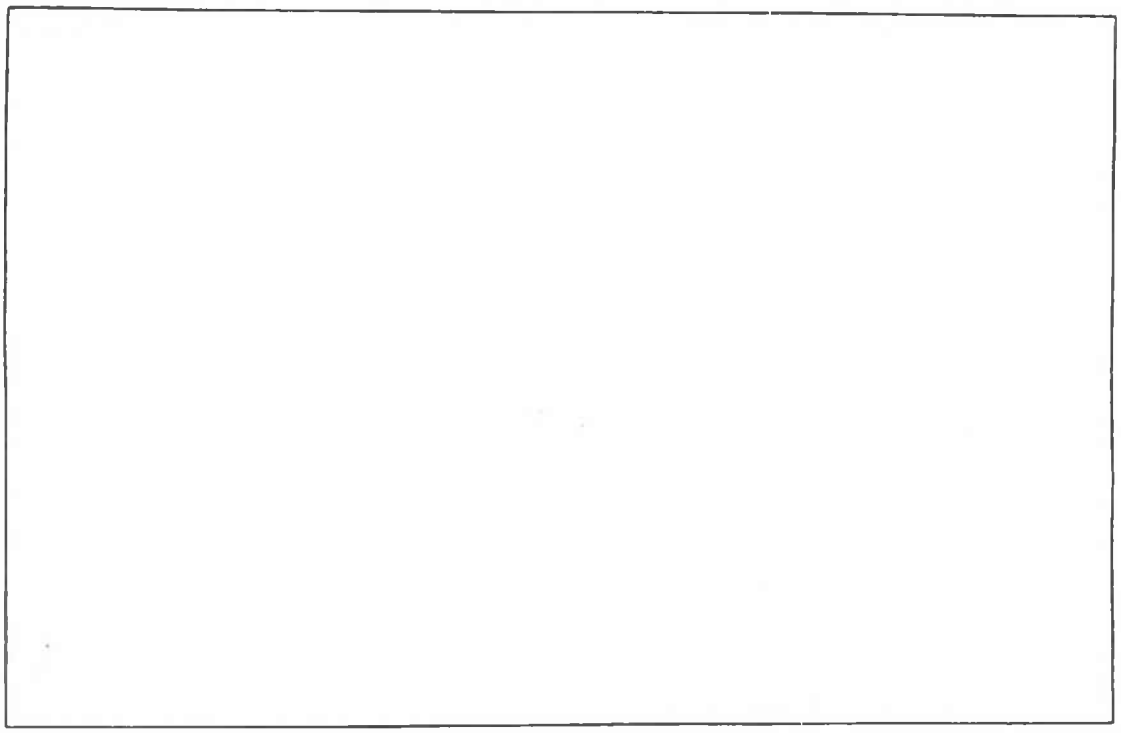
Collaborators : 1. .....
2. .....
3. .....

Evolution of the Plan :

Action Hypothesi(e)s

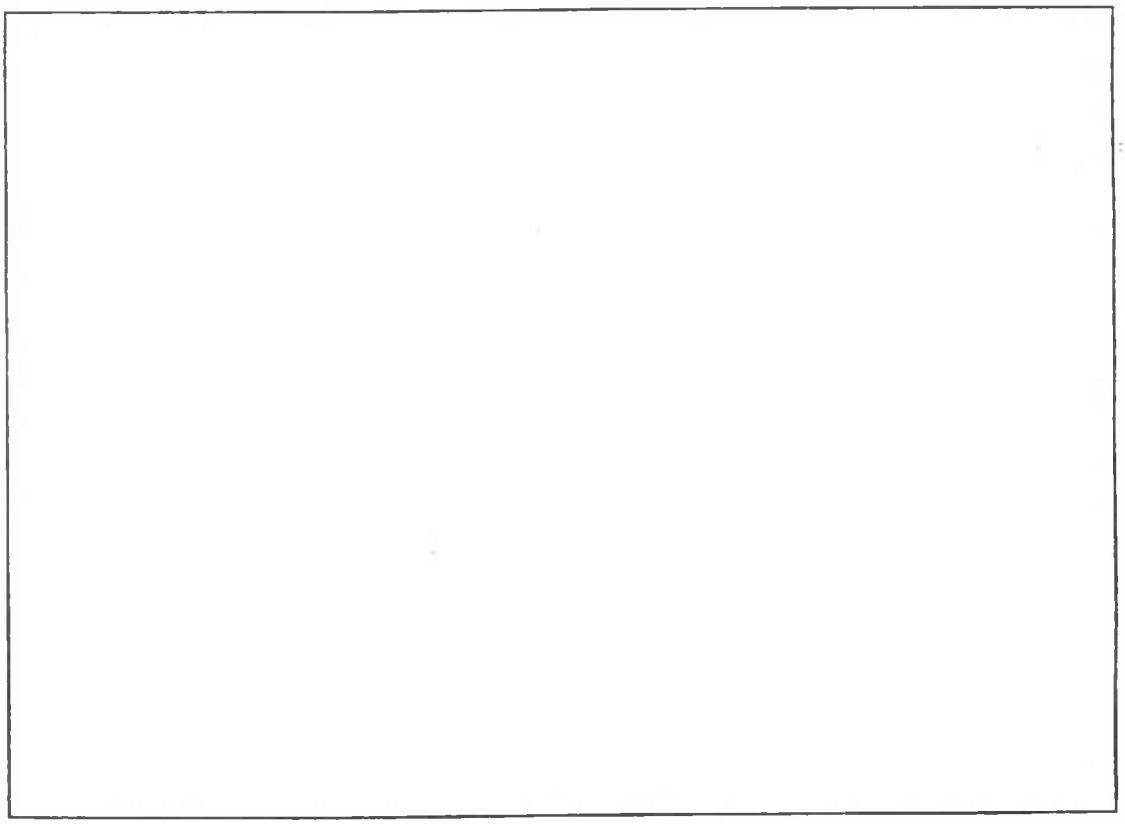
ACT

Change in action

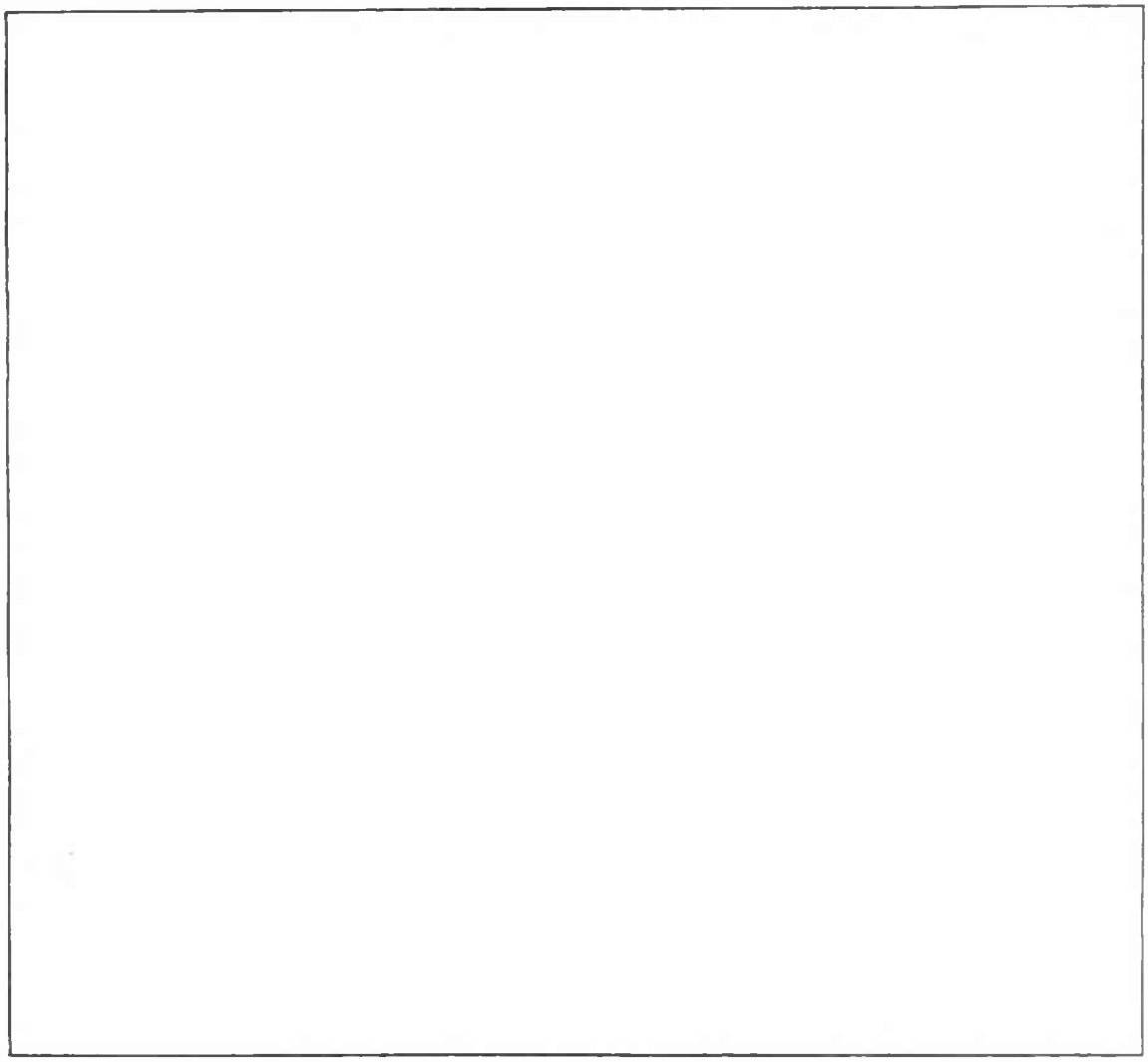


OBSERVE

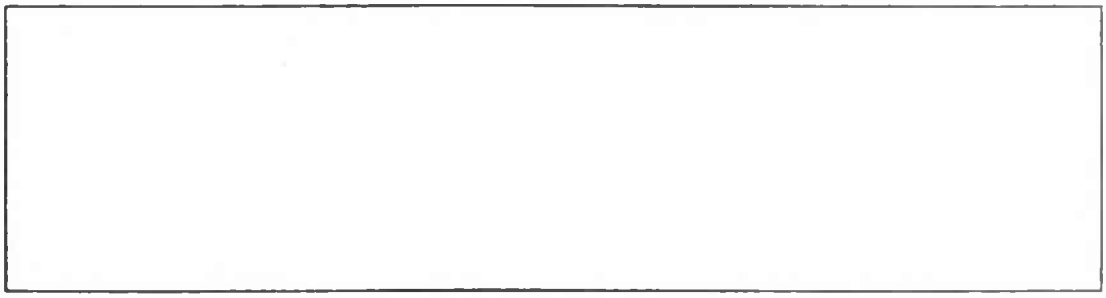
Evidence for change



REFLECT
Findings



Validation



Regional Institute of Education (NCERT), Mysore 570 006

TRAINING THE DIET FACULTY OF KARNATAKA STATE
IN CONDUCTING ACTION RESEARCH

REPORT

Session:
(Time)

Theme/ Topic/ Activity :.....

Date

Signature

REGIONAL INSTITUTE OF EDUCATION

(NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING)

MYSORE-570 006

Programme: TRAINING THE DIET FACULTY OF KARNATAKA STATE IN CONDUCTING ACTION RESEARCH

EVALUATION OF THE PROGRAMME:

Dear participants,

You are hereby requested to frankly evaluate the programme and help us to perform better in our subsequent programmes with your clear, concise and constructive comments.

Please answer all the items.

Section A:

General information:

1. Name : .....
2. Age (in years) : .....
3. Sex : male :..... Female:.....
4. Postal address of your DIET :.....
   .....
   .....
   .....Pin code:.....
5. Educational qualification :.....
6. Years of teaching experience :.....
7. Levels of teaching :
   - Elementary :.....
   - Secondary :.....
   - DIET :.....

Section B:

Training programme:

1. Objectives of the course
    - Idealistic
    - Realistic but not practicable
    - Realistic and practicable

2. Objectives of the course were
    - Attained with difficulty
    - Attained without difficulty
    - Not at all attained.

3. Course length
    - About right
    - Too short
    - Too long

4. Content coverage
    - Adequate
    - Too little
    - Too much

5. Qualitiy of the package was
    - To the expected level
    - Below the expected level
    - Superior

6. Strategies followed by the resource persons in presenting their content were simple and effective in
    - Most of the topics
    - Some of the topics
    - None of the topics

7. The adoption of these package by the DIET in preparing and conducting the programme will be
    - effective but difficult
    - simple and effective
    - not effective

8. Interaction among participants and resource persons were lively and informative
    - Most often
    - Some times
    - Not at all

9. Arrangement of work session was
    - Adequate
    - Moderately adequate
    - In-adequate

10. Use of visual aids
    - Adequate
    - Too little
    - Too much

11. Rate the course as a whole
    - Excellent
    - Very good
    - Good
    - Fair
    - Poor

What are your suggestions for improving the course?

.....
.....
.....
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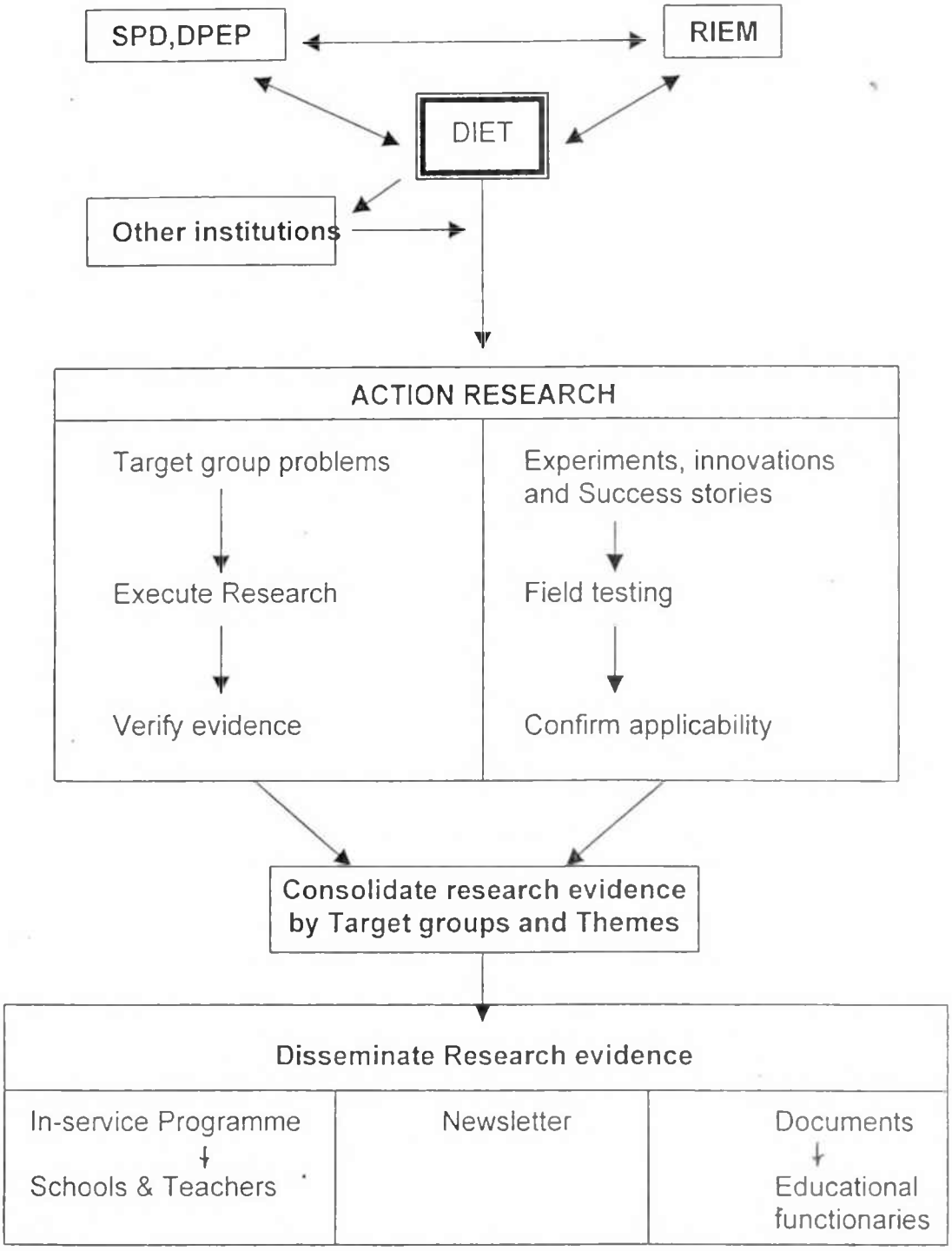
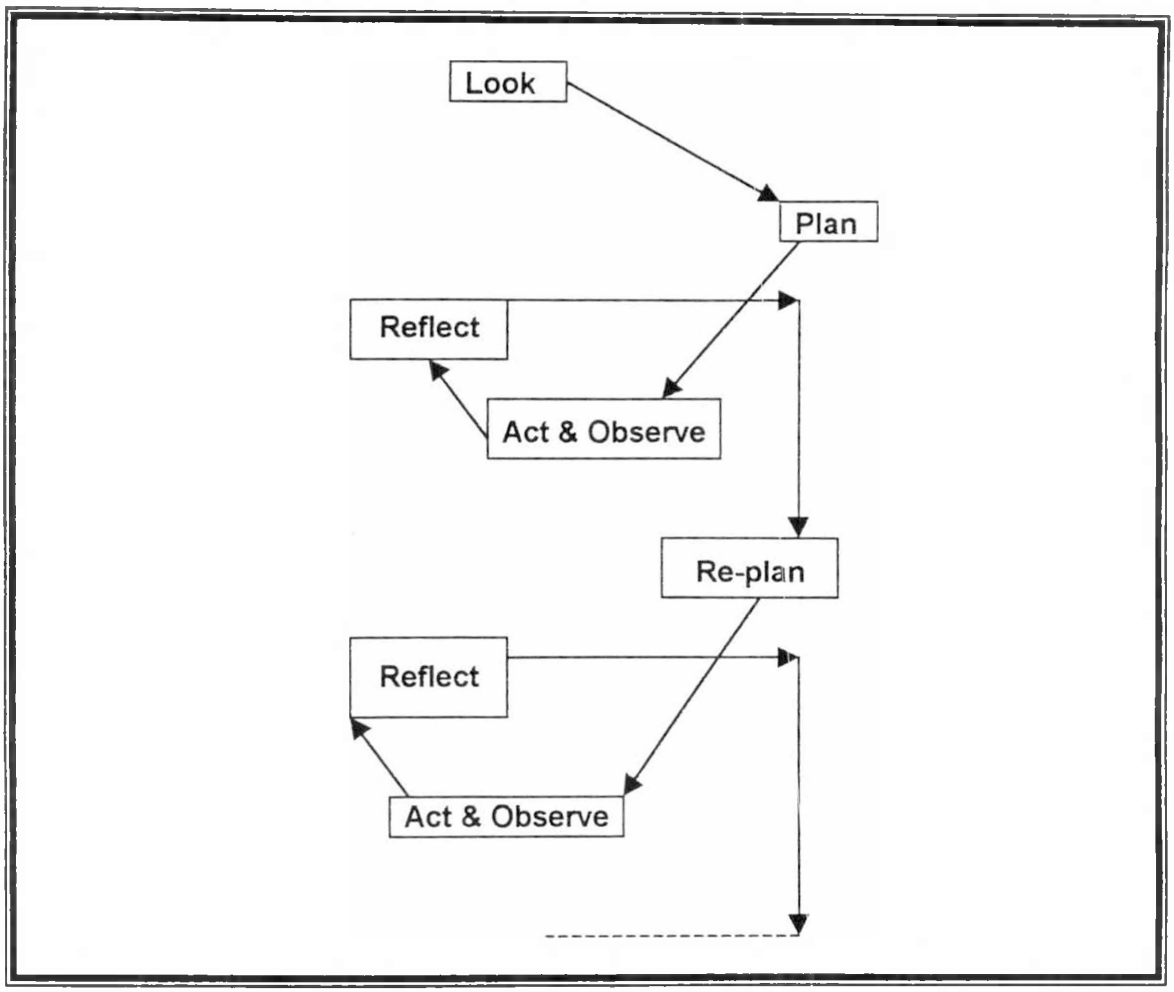
Thank you

Posters/Transparencies

Representation of the role of DIET in ACTION RESEARCH and dissemination of research evidences



ACTION RESEARCH SPIRAL



Moves in Action Research

LOOK ➡	PLAN ➡	ACT ➡	OBSERVE ➡	REFLECT
• Concern ↓ • Research questions →	• Collaborator ↓ • Evolution of the plan ↓ • Proposed change in practice →	• Change in action →	• Evidence for change →	• Findings ↓ • Validation

LOOK

CONCERN

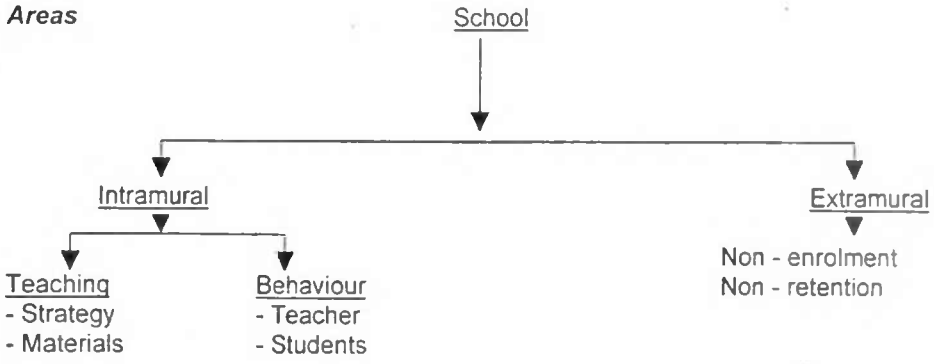
Nature

- Problem / issue / something that causes dissatisfaction
- Situation / strategy / practice that needs to be / could be improved
- General / specific.
- Clear / ill - defined.

Sources

- Self: introspection -reflecting on each lesson, making notes and planning for improvement or a different treatment while teaching next time.
- Students: behaviour, performance (written, oral & practical) and questions / doubts / comments.
- Colleagues: Discussion / comparing notes.
- Parents: Complaints / remarks.
- Community: Conversations / press (educational columns).

Areas



Selection To be determined by the teacher's jurisdiction and capacity to effect any change.

Research Questions

What - What do we want to change.
- What change do we want to effect.
- The subjects in whom we want to see the effect of the change.
- Stated in simple and unambiguous words.

Why - Help in delineating the concern.
- Compel us to analyse the situation.
- Give a proper direction to action research.
- Help in determining and stating the objectives.

Illustrations

1. Concern: **The students of class IV are not drawing neat and correct diagrams in Biology.**

   Research Questions: *What alternate strategies can be followed to make the students of class IV draw scientifically correct diagrams in Biology?*

   What guidelines can be provided to help them draw neat diagrams?

2. Concern: **The students of class V are very irregular in submitting the assignments.**

   Research Questions: *Do the students of class V find the assignments heavy or uninteresting?*

   How can I make the assignments more interesting and less burdensome for them?

3. Concern: **In spite of repeated teaching and testing, the students of class VI are not able to calculate the HCF and LCM.**

   Research Questions *What exactly poses the problem in calculating the HCF and LCM?*

   What alternate strategy can I follow to help them do the calculation correctly?

Criteria for Prioritising the Probable Actions for an ACTION RESEARCH of Three weeks

AN ILLUSTRATION

Problem :

LACK OF INTEREST IN LEARNING OF MATHEMATICS BY STUDENTS OF CLASS IV

Sl.No	*Probable cause*	*Proposed action Hypothesis*	*Actions required*	*Time required*	*Can I effect a change ?*	*Priority*
1	Last period in the day	Change of Time-table	Consent of HM	One week	NO	
2	Lack of previous knowledge	Remedial teaching in identified concepts	Diagnostic test and Remedial teaching	Three weeks	YES	II
3	Lack of use of appropriate teaching aids	Use of Mathematics Kit and Teaching Aids	Self-training in the use of Mathematical Kit	Three weeks	YES	I
4	Frequent change in mathematics teachers	One teacher for full session	Administrative decision	Six months	NO	
5	Over crowded classes	Reducing the number of students	Administrative decision	One year	NO	

PLAN

Small **Cycles** of **Plan - Action - Observation - Reflection**

Questions to be kept in mind while planning

- *What is the Study about?*
- *Why is the Study being made?*
- *Where will the Study be carried out?*
- *What type of data is required?*
- *Where can the required data be found?*
- *What periods of time will the Study include?*
- *What will be the sample design?*
- *What techniques of data collection will be used?*
- *How will the data be analysed?*
- *What will be the style of reporting?*

ACTION RESEARCH is collaborative

- identify parties concerned
- form groups

1. Evolution of the Plan:

- Evolve a plan through discussion with colleagues and identified parties.
- Expert counselling /opinions.
- Sheer intuition.
- Professional reading (review of related literature and Studies).

2. Proposed change in Action (practice)

- What strategies can be adopted to effect a change for better?
- Various alternatives may be considered.
- Selection of one or two action strategy (ies).
- The solutions to the problem have to be ***hypothesized.****
- Plan for change should be forward looking.
- Flexible enough to adapt under the existing conditions.
- ***Methodology*** ** to be decided for the Study.

*** Working Hypothesis**

Working hypothesis is a set of suggested tentative solutions of an explanation of a research problem, which may or may not be the real solution. It should be

- clear and specific (precise and stated in simple terms).
- testable.
- limited in scope.
- explicit about the relationship between variables.
- amenable to testing within a reasonable time.
- consistent with most of the known facts.

How does one go about developing *Working Hypothesis*?

1. Discussion with colleagues and experts about the problem, its origin and objectives in seeking solutions;
2. Examination of data and records, if available, concerning the problem for possible trends, peculiarities and other clues;
3. Review of similar studies in the area or of studies on similar problems;
4. Exploratory personal investigation which involves original field interviews on a limited scale with identified parties and individuals with a view to secure greater insight into the practical aspects of the problem.

Thus, *working hypothesis* arises as a result of thinking about the subject, examination of the available data and materials including related studies and counsel of experts and identified parties.

****Methodology**

Preparing the research design (methodology) includes:

Sample – Tools – Data collection – Time schedule – Recording procedures

WHY PLANNING?

- To make advance preparations
- To ensure optimal efficiency
- To achieve economy of time and effort
- To complete the task within a time frame
- To provide for checks and balances-Monitoring
- To provide a basis for subsequent decision making
- To minimise the chances of ad-hoc decisions and digressions
- To put the programme back on track in case of derailment
- To ensure smooth sailing of the entire programme

WHAT TO BE PLANNED?

- For the selection of the target group
- The details of collaboration
- Proposed change in action and its strategy
- Selection of tools
- Procedures for
  - administration of tools
  - collection of data
  - documentation
  - analysis and interpretation
- Time frame
- Resources: Human, Material & Financial (cost estimate)
- Format of the report

HOW TO GO ABOUT PLANNING?

- Use your experience and intuition
- Discuss with your collaborators, colleagues and experts
- If possible, do professional reading of relevant literature
- Revise/ Refine the plan based on feedback from
  - Collaborators, colleagues and experts
  - Pilot study

CHARACTERISTICS OF A GOOD PLAN

- Objective/goal oriented
- Forward looking
- Flexible: Sensitive to context and constraints

HOW TO MAKE THE PLAN SUCCEED?

- Plan *together*
- Plan *all aspects* of the programme
- *Put* the plan in *black and white*
- Obtain *continuous feed back* - make adjustments if necessary
- *Communicate* the plan to your collaborators
- *Adhere* to the time schedule
- Don't loose track of the *goals* at any stage of the operation
- Keep in mind your *strengths and constraints* while planning
- Keep *reviewing* the programme in the context of the plan
- Choose a small problem to begin with : *Success gives confidence*
- Remember : *Plan is not the end nor is it sacrosanct*

TOOLS AND THEIR RELEVANCE

Techniques /tools	*Relevant aspects of assessment*
Written test	Scholastic achievement
Oral test	Oral expression, functional understanding related to practical work, assignments, etc.
Performance test	Practical/project work
Observation	Home tasks, classroom participation and all character building qualities
Interview	Behaviour problems
Checklist	Health habits, study habits, work habits, process or performance
Anecdotal record	Significant achievements or inadequacies in performance and for record of observations
Student products	Understanding of the related knowledge, proficiency in skills, creative expression, interests, drawing skills, etc.
Record cards	Sequential record of students' progress over a period, students, profile, class profile, etc.
Rating scale	Personal and social qualities
Questionnaire	Information and opinions
Schedule	Information and opinions
Sociometry	Social relationship amongst students
Diary	Behaviour

ACT AND OBSERVE

EXECUTION OF ACTION RESEARCH

The success of any action research depends on the way in which it is executed. The effective execution of action research always depends on the following:

- *Components*: Meaningful, purposeful and goal-directed activity/ies;
- *Data*: The data should be collected through appropriate and suitable tools and should be adequate and dependable;
- *Course*: Sequential and logical arrangement of the designed tasks;
- *Time frame*: Proper time allocation to the proposed task and its completion within that time frame;
- *Recording*: All the evidences have to be recorded and maintained diligently with proper coding so that smooth analysis of the data can be carried out; and
- *Field check*: Occasional field check is necessary to judge the authenticity of the data collected.

1. ACT

The Change of Action

- *Deliberate Implementation of the plan*
- *Careful and thoughtful variation of the existing practice*
- *Flexibility*
- *Tool Preparation*

2. OBSERVE

Evidence for Change

Action researcher has to collect adequate evidence for the effectiveness of the change of action. The evidences have to be gathered through **multiple sources**.

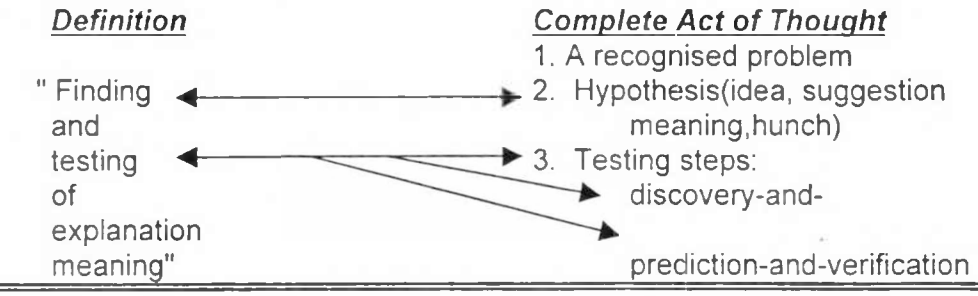
There are ***several methods*** of collecting data.

- ***Observation method***
- ***Interview method***
- ***Questionnaire***
- ***Schedules*** (Proforma containing a set of questions)
- ***Tests***

Apart from these methods, the evidences collected through documents such as **school records, cumulative records, mark registers, and teachers' diaries** also help in getting better insights while analysing and interpreting the data.

REFLECT

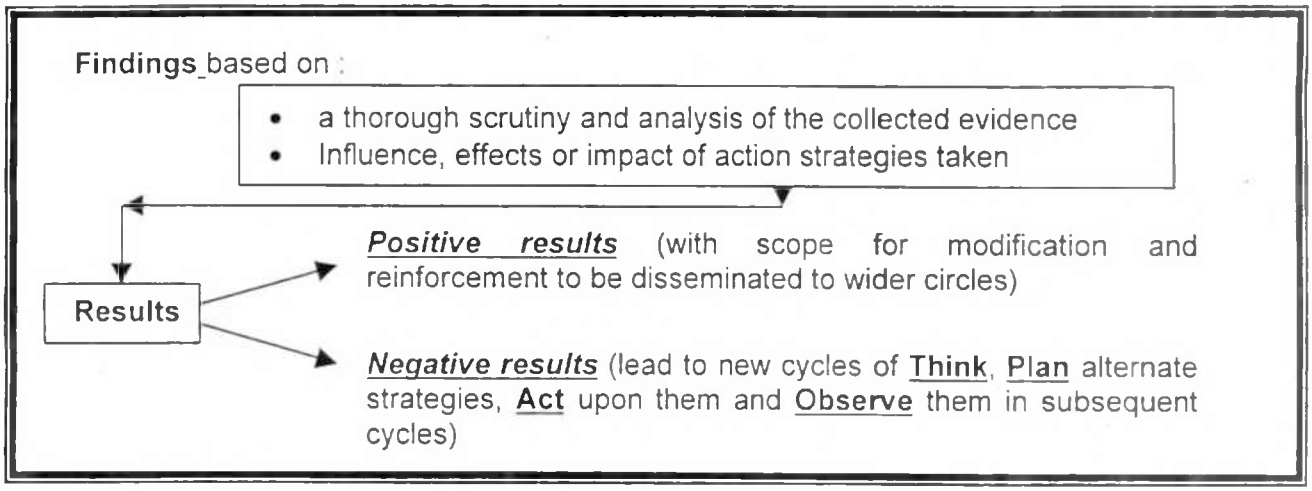
"Thinking is finding and testing of meanings"(Boyd.H.Bode,1921)



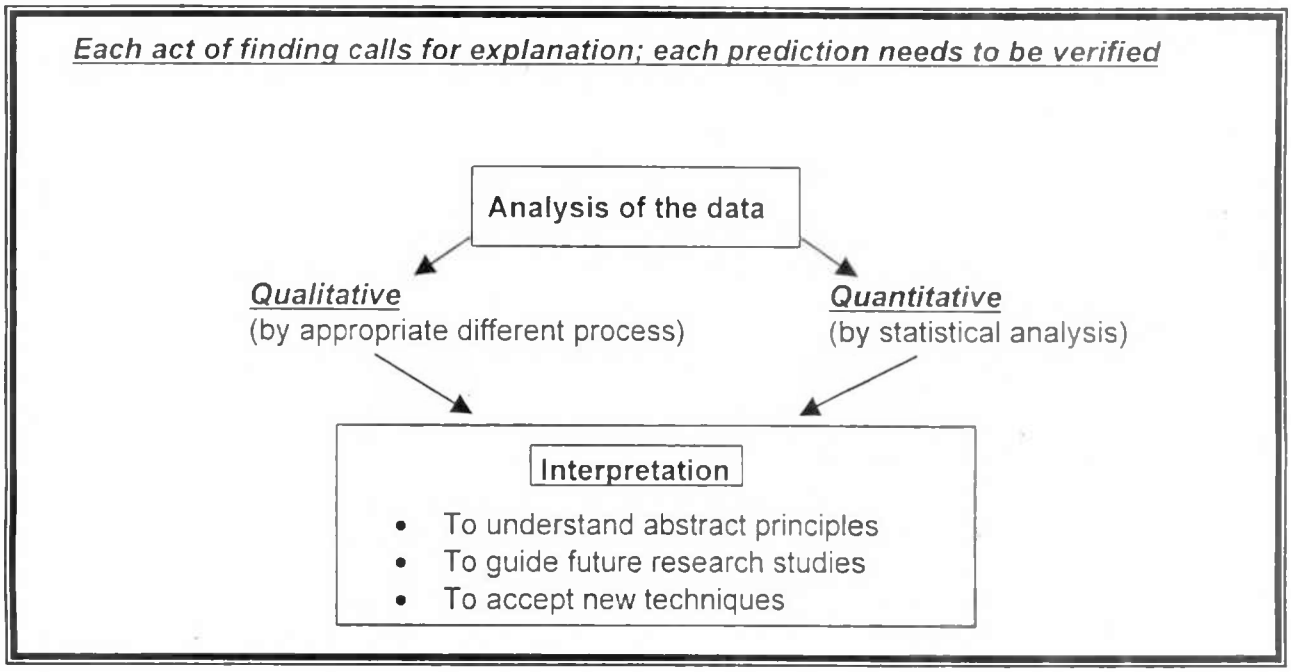
Reflect is a basic process of thinking to assess the action undertaken to solve the problem and the observation documented with utmost care and sincerity.

- *Observing the action and data collected;*
- *Approving of the activity, strategy or method used;*
- *Finding patterns and generalization in them;*
- *Forming conclusions based on observations;*
- *Assessing conclusions based on observations;*
- *Thinking critically - identifying unstated assumptions; and*
- *Confirming conclusions with facts.*

FINDINGS:



VALIDATION



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