

**ANDHRA PRADESH
PRIMARY EDUCATION PROJECT
(APPEP)
HYDERABAD**

REPORT

OF

**MAIN SURVEY 1
(CONDUCTED DURING NOVEMBER-DECEMBER, 1991)**

ON

IMPLEMENTATION OF THE PROJECT IN SCHOOLS

**DIRECTORATE OF SCHOOL EDUCATION
ANDHRA PRADESH, HYDERABAD.**

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P R E F A C E

The Phase II of Andhra Pradesh Primary Education Project (APPEP) was commenced in the state in June '89 with the financial assistance of the Overseas Development Administration (O.D.A.) of United Kingdom (U.K.), with the objectives of i) bringing about qualitative improvement in Primary Education by implementing activity-based approach to learning in all the Primary Schools in the State in a phased manner and ii) designing and constructing primary school classrooms and add-on-facilities to Teachers' Centres to provide better educational environment, after the successful implementation of the project in Phase I and Bridging Programme from January '85 to May '89. The implementation of the Human Resource Development (HRD) programme of the project commenced in all primary schools/sections of 9 districts during 1989-90, 8 districts during 1990-91 and the remaining 6 districts during 1991-92 in a phased manner. Every district is covered in a period of five years.

The inputs in the implementation of the project include 1) initial inservice training to teachers of primary classes on APPEP principles and approaches, 2) constitution of Teachers' Centres (T.Cs) for continuous mutual academic support, 3) supply of materials to schools and Teachers' Centres to organise activities 4) construction of additional classrooms to some needy schools and 5) construction of add-on facilities to selected Teachers' Centres. The initial inservice training is provided to teachers through cascade system wherein all the Lecturers of District Institutes of Education and Training (DIETs) are trained at the Project headquarters, who inturn train a few selected teachers (to act, later, as resource persons at Mandal level courses), and also provide training directly to some of the teachers at DIET level courses. Most of the teachers receive their training at Mandal level courses. The project chalks out and monitors all training programmes in consultation with the district level officers connected with its implementation viz., District Educational Officers (D.E.Os), Principals of DIETs, District Monitoring Officers and Mandal Education Officers (M.E.Os)/ Dy.Inspectors of schools. The supply of materials to schools and T.Cs is entrusted to the DEOs and MEOs by providing funds for the purchase of materials. The norms and specifications for the purchase of materials are also provided to these officers. The construction of classrooms in primary schools and add-on-facilities to Teachers' Centres in rural areas (excluding tribal areas) in the districts is done by the Panchayathi Raj department, in tribal areas by the Tribal Welfare department and in Hyderabad District by the Roads and Buildings Department in accordance with the designs developed and approved by the project.

The project carries out periodical evaluation studies to assess the progress made in the implementation of the project in schools and the impact of the project inputs on the quality of classroom instruction. In this process, a pilot survey was conducted in April, 91, in order to test the suitability of questionnaires and schedules developed

for collection of data from schools, the field arrangements made for collection of data and to develop suitable data processing and analysis systems for the Main Survey 1 conducted in November - December, 1991.

The Main Survey 1 was conducted as per schedule from 16.11.91 to 31.12.91 by collecting data from 500 selected schools, 224 of them had teachers - all or most of them - trained in APPEP approaches (these are termed as APPEP schools) and the remaining 276 had teachers not trained in APPEP approaches (these are termed as non-APPEP schools) in all the 23 districts of the state. As in the case of pilot survey, the District HRD Lecturers working in DIETs were involved in collection of data from the selected schools in each district after necessary orientation and training at the Project headquarters in the first week of November, '91.

The data collected in this survey covered the physical, educational and man-power resources in schools, classroom practices of teachers for APPEP implementation, participation and involvement of teachers in T.C. meetings, classroom observation, reactions of parents and pupils on the project implementation, test-scores of pupils in classes 3 and 5, enrolment, absenteeism and drop-out of children.

The data collected for the Survey were computerised and analysed at National Informatics Centre (N.I.C.), Hyderabad with the technical guidance and cooperation of the organisation.

The survey makes some deep probe on the usefulness of initial inservice training and 3-day follow-up courses to teachers, the participation and involvement of teachers in the activities of Teachers' Centres, the initiative of teachers in the implementation of APPEP principles in classrooms etc. with relevant comparisons from the data of pilot survey. As such, I hope this report will be a valid data-base for measuring different dimensions of the project impact on the qualitative improvement and quantitative development of primary education in the state in future years.

It is my profound duty to express my thanks to various dignitaries, academicians of excellence, distinguished organisations, project administrators at different levels, teachers of primary schools, parents and pupils who extended their full cooperation and support for the successful conduct of Survey and bringing out a report.

- my esteemed thanks are to Dr. J. Sreedhara Sarma, I.A.S, Secretary to Govt., Education Department, Government of A.P. and Sri K.S. Sarma, I.A.S., former secretary to Govt., Education Department, Government of A.P. for their full encouragement, administrative support and impetus for the conduct of the survey on time.

- **my valuable thanks** are to the U.K. consultants on Evaluation, Prof. Colin Lacey, Dr. Barry Cooper and Dr. Harry Torrance of the University of Sussex for **providing excellent academic guidance** to the members of the project in **designing, conducting the survey, computerising, analysing the survey data and finalising the report**. I highly acknowledge the special efforts of Prof. Colin Lacey in moderating the report to international level.
- **my sincere thanks** are to Dr. A.J. Davison, Field Manager, APPEP Mr. David Theobald, former Field Manager, APPEP and Dr. Ved Goel, Educational Advisor, APPEP of British Council, New Delhi for their constant interest and continuous external support for the successful conduct of the survey and offering valid suggestions in the finalisation of the report.
- **my heartfelt thanks** are to Dr. N.V.R. Koteswara Rao, Director, National Informatics Centre (N.I.C.) and his able technical officers for extending their full cooperation and guidance in computerising and analysing the survey data.
- I compliment the headteachers of schools and teachers of primary classes wholeheartedly, for their full co-operation in conducting the survey.

Before I conclude, I very much appreciate the Project Director, and staff of the project, the District Educational Officers, principals of DIETs, District Monitoring Officers, District HRD Lecturers of DIETs, Mandal Educational Officers / Dy. Inspectors of schools for the vigorous and purposeful efforts they have put in, to conduct this survey and set in motion the evaluation process with a beaming start.

I sincerely welcome valuable comments on the report.

Place : Hyderabad,

Date : 22.06.1993.

B. KONDA REDDY
Director of School Education,
Andhra Pradesh, Hyderabad.

S U M M A R Y

A. Introduction and Model of Evaluation

- i) The Main Survey 1 was conducted as the first evaluation study of Andhra Pradesh Primary Education Project in November-December, 1991 in all 23 districts of the state after an extensive pilot survey in April, 1991 which tested all the field instruments and procedures (Para 1.1)
- ii) The evaluation model developed for the survey describes improved classroom practices, teacher motivation more activities, practical learning, better and less crowded classrooms as the direct effects of project implementation in schools (Para 1.1)
- iii) The model seeks to indicate better pupil learning, motivation and enjoyment as first order outcomes, less absenteeism, broader pupil performance, parent awareness and satisfaction as second order outcomes of the project implementation (Para 1.1)
- iv) The purpose of the survey was to identify the kind of impact the project had on classroom practices and to assess the impact of the project principles and approaches on the quality of teaching-learning situations in primary classes in the state (Para 1.2)
- v) The sample of 500 schools in the survey consisted of 224 APPEP schools and 276 non-APPEP schools (Para 1.4)
- vi) Eight schedules were used for collecting data on various aspects of the survey (Para 1.5)
- vii) The District HRD Lecturers working in DIETs were entrusted with the responsibility of collecting data from the sample schools (Para 1.6)
- viii) The computerisation of data was undertaken in collaboration with the National Informatics Centre (N.I.C.), Hyderabad as in the case of pilot survey (Para 1.9.1)

B. The Comparability of samples

- i) The APPEP and non-APPEP sample schools were compared for the background variables like management of schools, location of schools, ownership of school buildings, type of school buildings, literacy levels of parents, average annual income of parents, availability of rooms for classroom instruction and years of service of teachers to demonstrate that the samples were made up of similar cross section of schools (Para 2.1)
- ii) The samples have been tested for eight relevant background variables and none shows a statistically significant difference (Para 2.3)

C. Implementation of APPEP in schools

- i) The implementation of APPEP was evaluated at two levels viz. implementation by the Delivery system and implementation in the classroom (Para 3.1)

- ii) During the years 1990 and 1991 a number of external events like census, general elections which involved teachers prevented the training time-table from being realised on time (Para 3.1)
- iii) Over 20 % of the teachers in APPEP sample schools did not undergo the APPEP training till the time of the conduct of the survey (Para 3.2.1)
- iv) Nearly 40 % of the teachers who had undergone APPEP initial inservice training felt the training as 'very useful' in the implementation of APPEP principles in schools. This percentage was 63 % at the time of pilot survey and fell to 40 % at the time of this survey (Para 3.2.2.)
- v) Only 21 % of teachers found the 3-day followup courses held after the initial training as most helpful ('a lot' helpful). Also a good number of teachers did not receive the 3-day follow-up courses during 1990-91 (Para 3.2.2.)
- vi) 80.50 % of teachers in APPEP schools felt the need for provision of training in pupil assessment procedures during the APPEP initial inservice training courses (Para 3.2.4)
- vii) 87 % of teachers from the APPEP trained sample reported that the teachers' handbook supplied during the APPEP training period was available to them and 86 % reported that they were able to use it (Para 3.2.5)
- viii) 84 % of teachers reported that the materials needed for implementing APPEP principles were made available to them and 80 % felt that they were able to use the material properly. However, the range of availability of materials varied from 52 % to 100 % and that of the teachers' ability to use them from 42 % to 97 % in different districts (Para 3.2.5)
- ix) The participation and involvement of APPEP trained teachers in T.C. meetings was more represented in medium and high levels when compared to the low and medium levels of participation of teachers in non-APPEP schools (Para 3.2.7)
- x) The percentage of schools visited by Mandal Education Officers (MEOs) either APPEP or non-APPEP was more or less the same. They have not been instructed to visit APPEP schools more frequently, either (3.2.8)
- xi) The idea of mutual support of colleagues in schools for APPEP implementation is beginning to grow (Para 3.2.9)
- xii) 38 % of APPEP trained teachers are estimated to be carrying out group work in classrooms (Para 3.3.2)
- xiii) 41 % of APPEP trained teachers are estimated to be displaying children's work in classrooms (Para 3.3.3)
- xiv) The classroom observation data reveal that the mean performances of teachers of APPEP schools in the conduct of group activities and display of children's work are statistically significant when compared with teachers in non-APPEP schools (Para 3.4.1)

- xv) The mean performances of teachers trained at DiET and Mandal levels do not significantly differ in the conduct of group activities and display of children's work (Para 3.4.3)
- xvi) The number of demonstration lessons given by MEOs in APPEP schools had some positive impact on the number of times group activities were organised and children's work displayed by the teachers in classrooms (Para 3.4.4)
- xvii) MEOs' guidance and teachers' initiative for the conduct of group activities and display of children's work are correlated in a significant manner (Para 3.4.5)
- xviii) As the support from headteacher and colleagues improves, the initiative of the teacher increases in taking measures for the implementation of APPEP principles in schools (Para 3.4.6)

D. The outcomes of APPEP implemetation :

- i) A new indicator " APPEPness " was created combining three factors namely participation and involvement of teachers in T.C. meetings, conduct of group activities and display of children's work to test its association with other variables like pupil enjoyment and continuous absence (Para 4.2.4)
- ii) There is an increasing trend in the pupil enjoyment of school as the value of index on APPEPness increases (Para 4.2.4)
- iii) 76.97 % of the parents interviewed visited the schools during the year 1990-91 and of them, 47.02 % indicated that they had noticed some change in the methods of teaching in schools and 60.47 % indicated that they noticed change in the study behaviour of their children (Para 4.3.1)
- iv) There was reduction in mean continuous absence of children in APPEP schools (boys : 2.58 girls : 1.50) from March, 1991 to October, 1991 as the value of APPEPness increased (Para 4.3.2)
- v) The size of enrolment of children in classes I - V and proportion of boys and girls in the two kinds of schools were more or less the same during the years 1990-91 and 1991-92 (Para 4.4.1)
- vi) There are no significant differences in the mean dropout rates of children in classes 1 - 4 in APPEP and non-APPEP schools during 1990-91 (Para 4.4.2)
- vii) The mean performance of children in classes 3 and 5 do not vary significantly in APPEP and non-APPEP schools. The variations, if any, in this data were found to be associated with parental literacy, location of school and the resources in school (Para 4.4.3)

SECTION 1 : BACKGROUND TO THE SURVEY

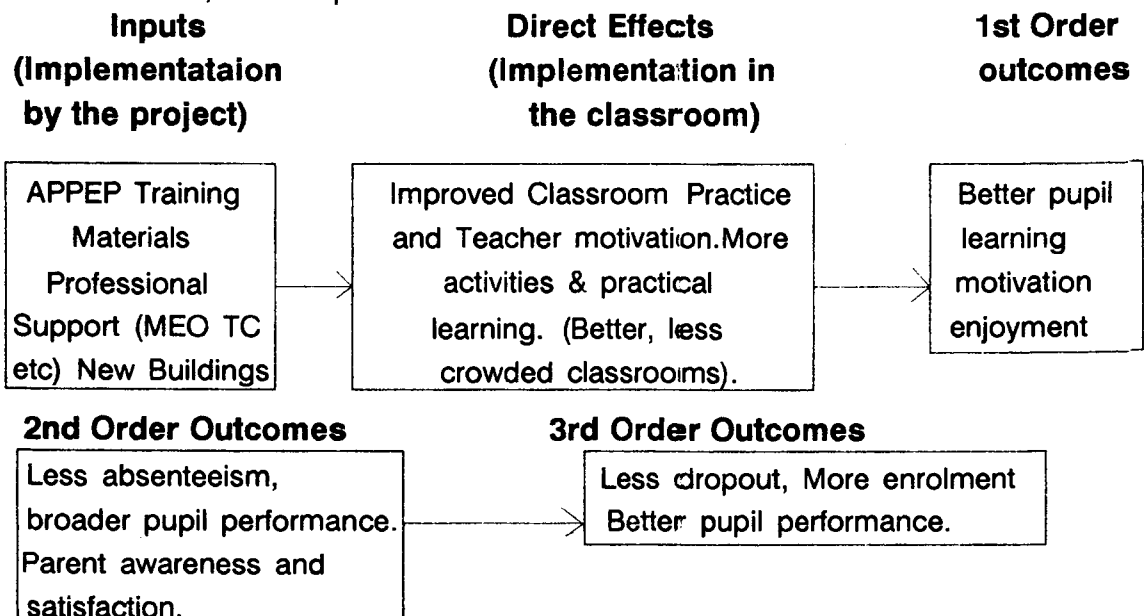
1.1 Introduction and Model of Evaluation :

The first main survey (M.S. 1) as evaluation study of the Andhra Pradesh Primary Education Project (APPEP) was conducted in November-December, 1991. This followed an extensive pilot survey (April, 1991) which tested all the field instruments and procedures. The pilot study had also been analysed and data from the report of the study would be drawn upon in this report. The M.S. 1 was conducted in all of the 23 districts of the state and is therefore the first evaluation study to measure the impact of the project on a statewide basis.

The evaluation of a project as large and innovative as APPEP is a matter of great importance to a wide range of audiences. The Overseas Development Administration (O.D.A.) of U.K., the Government of India (G.O.I) and the Government of Andhra Pradesh (G.A.P.) have all been showing keen interest in the progress and outcomes of the project.

APPEP is an ambitious project. It is an attempt to improve the quality of teaching in all primary schools in the state. By doing so it is hoped to improve the quality of learning situations and improve the pupil learning and school attendance in a substantial measure. In the build-up to the project and in its early years a wide variety of hoped for outcomes were stressed. The list included increased enrolment, decreased drop-out, decreased absenteeism, increased pupil enjoyment and motivation, increased pupil learning both in traditional skills and in a wider range of intellectual and social skills.

In order to clarify this wide range of expected outcomes and provide a frame work in which the outcomes of the project might be judged, the Evaluation Cell has developed a model describing project inputs and hoped for outcomes. The model arranges the inputs and hoped for outcomes in a sequence which represents a prediction of the order in which events must/might happen. The model also provides a structure for this report which proceeds from the left to the right of the model; from implementation to outcomes.



1.1.1 Assumptions of the model :

Before proceeding with the description of the project and survey, it is important to note a number of points highlighted by a consideration of the causal sequence built into the model.

1. The model gives the impression that an improvement in one element of, say, direct effects will, without complication, feed into first order outcomes and perhaps second order outcomes as well, without complication or interaction. This is not wholly true. Some desired outcomes may well interact with and inhibit others. For example, higher enrolment might well increase the difficulty of teachers and produce larger classes of children who are more difficult to teach. This could increase dropout or depress academic achievement.
2. In addition, the model is built on a set of assumptions that may not exist in practice. For example, children may well enjoy activity based learning but parents may possibly interpret it as play and not 'proper' schooling. There is evidence from case studies that some teachers fear this interpretation. However, the effect of the model would be to focus our attention on these issues. In the example above it could perhaps lead to a recommendation that the training courses spend some time in anticipation of some of the negative parent-reactions and therefore provide teachers with positive ways of dealing with them.
3. It follows from a consideration of these and other interacting factors as well as an understanding of the social and economic inhibitions to the 3rd order outcomes that it would be unrealistic to expect early, substantial improvements. In addition, it should be remembered that the measurement of all of these outcomes is extremely complex and difficult. This sequence of prediction outcomes can be regarded as a heuristic and predictive model with the purpose of clarifying the analysis and helping in the interpretation of data of the survey. The model will be tested and modified as the evaluation proceeds in subsequent surveys.

It may not be too early to gauge the direct effects of the APPEP inputs and measure the first order outcomes to some extent through the data collected in this survey, but it is too early to expect substantial improvements in the second and third order outcomes at this stage. This is due to the fact that the period of project implementation was two-year old in 9 districts, one-year old in 8 districts and less than a year old in 6 districts at the time of collection of data for Main Survey 1.

1.2 The Purpose of the Survey

The purpose of the survey was to identify the kind of impact the project had on classroom practices and to assess the impact of the project principles and approaches on the quality of teaching-learning situations in primary classes in the state; Hence, the objectives of the Main Survey 1 were kept as :

- to identify changes in the calssroom practices
- to find out the impact of project on the quality of classroom instruction.

- to assess the impact of project approaches on enrolment, absenteeism and dropout of children in schools.
- to identify the impact of the project approaches and principles on the achievement levels of children.
- to find out the extent of interaction of the community with the schools on the implementation of APPEP approaches and principles.

1.3 Some broad descriptive features of APPEP

The phase I of APPEP (then known as Primary Schools Project) was taken up in the state during 1984-87 in 328 primary schools of 11 identified districts, with one million pounds (Rs. 194.51 lakhs) of financial assistance from the Overseas Development Administration (O.D.A.) of the government of U.K. This was followed up by a bridging programme from 1987 to 1989 with a financial assistance of Rs.135.91 lakhs to consolidate the programme of phase I, and to formulate proposals for Phase II dovetailing with the programmes of National Policy on Education, 1986.

The phase II of the project launched in 1989-90 was to be operational for a period of 5 years from 1989-90 to 1993-94 (to be later extended till 1995-96), with an assistance of 27.90 million pounds (Rs.7274 lakhs) from O.D.A., for the implementation of the project principles and approaches in all the primary schools / sections of the state in a phased manner covering at the rate of 20 % of Mandals per year in each district. The period of the project in the 23 Districts of the state is as indicated below :

Period of the project	Names of the Districts
1989 - 90 to 1993 - 94	Visakhapatnam, Krishna, Nellore, Chittoor, Cuddapah, Hyderabad, Rangareddy, Mahabubnagar, & Nalgonda.
1990 - 91 to 1994 - 95	Srikakulam, East Godavari, Prakasam, Anantapur, Kurnool, Karimnagar, Medak and Adilabad.
1991 - 92 to 1995 - 96	Vijayanagaram, West Godavari, Guntur Khammam, Warangal and Nizamabad.

All the Mandals in each district will, thus, be covered in a period of 5 years from the year of launching of the project. The project will last for seven years from the year of launching of phase II because the start for each group of districts was staggered by one year.

The implementation of the project at school level means enabling classroom teachers to adopt teaching-learning strategies based on the six principles of the project (known as the six APPEP pedagogical principles) with the support of the project inputs that make the implementation process stronger and effective.

The six APPEP pedagogical principles and the project inputs to schools in support of their implementation are as follows:

1.3.1. APPEP Pedagogical Principles :

1. Providing teacher generated learning activities
2. Promoting learning by doing, discovering and experimenting
3. Developing individual, group and whole class work
4. Providing for individual differences
5. Using local environment
6. Creating an interesting classroom by displaying children's work and organising it effectively

1.3.2. Project inputs to schools :

1. HRD training (APPEP initial inservice training) to teachers of primary schools on APPEP approaches and principles is conducted either at DIET or Mandal Level. This training is provided through cascade system. The Lecturers working in DIETs are trained at project headquarters and in turn they provide training to some of the primary school teachers at DIET level for a period of 18 days. The MEOs and Mandal Resource Persons (comprising experienced primary school teachers and headteachers of upper primary schools teaching classes 1 to 5) trained at DIET level in turn provide training to most of the primary school teachers at the Mandal level for a period of 10 days.
2. Establishment of Teachers' Centres (TCs) for mutual academic support through 3 day follow up courses and one day TC meetings.
3. Provision of consumable materials to schools and consumable and non-consumable materials to TCs for effective organisation of pupil learning activities and teacher preparation activities respectively.
4. Construction of additional classrooms to some needy primary schools and add-on facilities for teachers' centres which include a meeting room, a store room, drinking water, toilets and electricity.

1.3.3. Targets for Implementation of the Project :

By 1995-96, the project aims at :

1. Providing APPEP initial inservice training to about 165 thousand teachers of primary classes working in about 52 thousand Primary schools/sections in the state.
2. Establishing 6,500 teachers' centres (T.Cs)
3. Constructing 3393 classrooms in schools and add-on facilities to 1104 teachers' centres.

1.3.4. Achievements made till 1991-92:

- i) 50,389 teachers of primary classes were provided APPEP initial inservice training at DIET and Mandal levels.

- ii) 2402 Teachers' Centres (T.Cs) were established and, of them 1244 have been activated.
- iii) All the 22,699 schools covered were provided with funds for the purchase of consumable materials worth Rs. 500/- (escalated every year) for each school per year.
- iv) 1524 classrooms to schools and add-on facilities to 532 T.Cs, were constructed.

1.4 The Sample :

The design, methodology and procedures adopted for collection of data, computerisation and analysis of data are briefly described in this section. The sample of schools selected, the survey instruments developed, the methods and procedures adopted for data collection were as follows :

The size of the sample of schools was fixed as 500 for the survey, keeping in view the quantum of work load of District HRD Lecturers of DIETs, for collection of data from schools. Two cohorts of project schools were included in the sample from each district. They were APPEP (trained) schools and APPEP (not trained) schools. APPEP (trained) schools were those which came into the project fold during 1990-91 and teachers working in them trained in APPEP approaches and principles. APPEP (not trained) schools were those which came into the project fold during 1991-92 but teachers working in them not trained in the APPEP approaches and principles until Main Survey 1 which was conducted in November - December 1991. 12 APPEP (trained) schools and 12 APPEP (not trained) schools were selected from each of the 17 districts that came into the project fold by 1990-91 . 12 APPEP (not trained) schools were selected from each of the 6 districts that came into the project fold for the first time during 1991-92. Thus, 204 (12 x 17) APPEP (trained) schools and 276 (12 x 23) APPEP (not trained) schools were selected from the 23 districts of the state for collecting data in Main Survey 1. In addition to the 204 APPEP (trained) schools, the 20 pilot schools of phase I were also included in the sample, taking the total number of APPEP (trained) schools to 224. Thus the total sample of 500 schools in the survey consisted of 224 APPEP (trained) schools and 276 APPEP (not trained) schools. From now onwards the APPEP (trained) schools will be referred to as APPEP schools and the APPEP (not trained) schools as Non-APPEP schools for analysis and discussion in this report.

The sample schools in each district were selected to represent the characteristics of i) location of schools i.e., urban, semi-urban, rural and tribal areas ii) provision of APPEP classrooms to schools and iii) establishment of Teachers' Centres in schools. Thus the sample of schools chosen in each district for the two cohorts i.e. 1990-91 and 1991-92 were from the following four groups of schools :

- Group I:- Schools with both APPEP classrooms and Teachers' Centre
- Group II:- Schools with APPEP classrooms and without Teachers' Centre
- Group III:- Schools without APPEP classrooms and with Teachers' Centre.

Group IV:- Schools without both APPEP classrooms and Teachers' Centre.

The sample schools were selected by using the stratified random sampling technique with the help of particulars obtained from the District Educational Officers (DEOs), the Detailed Implementation Plans (DIPs) available at project HQ and the particulars available on the provision of classrooms and buildings for schools and TCs in the Designs Cell of the project and office of the Chief Engineer Panchayat Raj, Hyderabad.

The number of schools selected from each district is given in Annexure-i.

The number of sample schools included in the first Main Survey (other than the 20 pilot schools of phase I of the project) is given in Table - 1.

TABLE 1
NUMBER OF SAMPLE SCHOOLS INCLUDED IN MAIN SURVEY 1

Group of Schools	Location	APPEP Schools	Non-APPEP Schools
1 Schools with APPEP classrooms and with TC	Urban	4	3
	Semi-urban	9	10
	Rural	14	9
	Tribal	*	*
2 Schools with APPEP classrooms and without TC	Urban	3	5
	Semi-urban	4	5
	Rural	16	17
	Tribal	3	2
3 Schools without APPEP classrooms and with TC	Urban	11	19
	Semi-urban	25	31
	Rural	28	56
	Tribal	2	3
4 Schools without APPEP classrooms and without TC	Urban	14	19
	Semi-urban	13	14
	Rural	44	65
	Tribal	14	18
Total	Urban	32	46
	Semi-urban	51	60
	Rural	102	147
	Tribal	19	23
		204	276

Note : * No schools with APPEP classrooms and with T.C. were available in tribal areas of the districts at the time of selection of schools for this survey.

1.5 The Survey Instruments :

The six schedules used in the pilot survey were revised and refined based on the feedback obtained. This revision enabled collection of data on dates of training to teachers (APPEP initial inservice training, follow- up courses and T.C. meetings), genderwise particulars of teachers working in schools, drop-out particulars of pupils (genderwise), test scores of pupils (genderwise) and use of handbooks and materials by teachers etc. In addition to these schedules, two Interview Schedules, one for the pupils of primary classes and the other for the parents of the pupils were also developed for the purpose of collecting data in Main Survey 1. Thus, eight Schedules were used for collecting data in Main Survey 1. The aspects of data to be collected, the functionaries that fill in the schedules, the number of expected/ actual respondents in respect of each Schedule were as indicated below:

SCHEDULE	TO COLLECT DATA ON	TO BE FILLED IN BY	No.OF EXPECTED/ACTUAL RESPONDENTS
1	School background and resources	Head Teacher of the school	500/500
2	Enrolment, Absenteeism and Drop-out of pupils	Part A: Head Teacher of the school Part B&C: Dt HRD Lecturer	500/500
3	Test scores of pupils	Head Teacher of the school	500/500
4	Classroom observation	District HRD Lecturer	500/500
5	Opinions of teachers on APPEP training and activities carried out by teachers for implementation of APPEP principles.	APPEP Trained head teachers and teachers in APPEP schools.	1120/721 (@ 5 from each school expected)
6	Preparation and pedagogic activities of teachers in classrooms of Non-APPEP schools	Head Teachers and Teachers of Non-APPEP schools.	1380/1185 (@ 5 from each school expected)
7	Interview schedule for parents	District HRD Lecturer	896/856 (@ 4 from each school expected)
8	Interview schedule for pupils	District HRD Lecturer	896/845 (@ 4 from each school expected)

N.B : The numbers in the 'expected' column were simple mathematical assumptions for administrative purposes. The ratio does not represent the response rate.

The eight Schedules developed in English language were translated into Telugu (except schedule 4) and got printed for collecting data from schools. The Schedules 1 to 8 are given in Annexure-II for reference.

1.6 Personnel identified for collection of data :

The District HRD lecturers working in DIETs of the 23 districts were entrusted with the responsibility of collecting data from the sample schools in Main Survey - 1 as in the case of pilot survey. In DIETs, where one or more of the four posts of District HRD officer, remained vacant, the Lecturers working in other departments, with specialist training at the University of London Institute of Education (ULIE) were identified to collect data. The personnel identified for collecting data were oriented at the Project Headquarters in two workshops held in September and November 91 for a period of 2 days each. 76 District HRD Lecturers attended the workshops. The September workshop was organised during the visit to APPEP, Hyderabad, of the two UK consultants on Evaluation who acted as Resource Persons in the workshop. The participants were oriented on the objectives of the survey, schedules to be used for collection of data, methods to be adopted for collecting data from schools, methods of scrutiny of data collected etc.

1.7 Preparation for the conduct of the Survey :

The Project took the following steps for a smooth and timely conduct of the survey :

- i) The Schedules of the survey were handed over in person to the HRD Lecturers of 23 districts who attended the workshop on Main Survey 1 held in the first week of November 1991 to avoid delay in undertaking visits to schools.
- ii) Detailed visit schedule of HRD Lecturers to 500 schools in the 23 districts was worked out (as each HRD Lecturer was to visit schools assigned to him/her in two spells) by specifying the dates and communicated to all the principals of the DIETs so that the visits could be carried out by the HRD Lecturers with adequate preparation and without any dislocation to their normal duties. The schedule of visits is given in Annexure - III.
- iii) Detailed guidelines on the procedures to be adopted for collecting data and scrutinies to be made in respect of each schedule (Annexure-IV) were prepared and communicated well in advance to all the HRD lecturers of DIETs involved in the collection of data.
- iv) The members of the cell undertook visits to 42 schools in 16 districts during the time of visits to schools by HRD Lecturers to provide on-the-spot guidance in collection and scrutiny of data.
- v) The DEOs, Principals of DIETs and District Monitoring Officers (DMOs) were informed well in advance about the conduct of the Main Survey 1 by issuing proceedings of the DSE and they were requested to take all possible steps for the conduct of the survey and extend all cooperation needed by the District HRD Lecturers for collection of data from schools. They were also requested to issue instructions to the MEOs accordingly.

- vi) The District HRD Lecturers were also instructed to enclose certificates in respect of each school stating that they had scrutinised the data collected and found the schedules filled in as per the instructions.

1.8 Time Schedule for collection of data :

The collection of data for Main Survey 1 was organised in all the 500 sample schools of the 23 districts from 11.11.91 to 20.12.91. Each District HRD Lecturer was assigned a maximum of 8 schools for collection of data. The District HRD Lecturers carried out the first spell of visits to schools from 11.11.91 to 20.11.91, for a period of one day, to each school to handover the schedules and brief the Headteachers and teachers of the schools. The second spell of visits to schools was carried out from 25th Nov,'91 to 20th Dec,'91 for a period of two days to each school to check the data furnished in schedules 1, 2, 3, 5 and 6, undertake classroom observations and record them in Schedule 4 and interview selected parents/pupils through schedules 7 and 8. The scrutiny of the data collected was carried out by the District HRD Lecturers from 21.12.91 to 23.12.91 in the DIETs. During the initial checking of the Schedules at the schools, the District HRD Lecturers were expected to check the data for internal inconsistencies and during the scrutiny of the Schedules at DIETs, they were supposed to verify whether proper codes were used in each Schedule and relevancy of the information furnished by the respondents. The data collected from the 500 schools were handed over by the principals of DIETs at the project headquarters by 31.12.1991.

1.9 Computerisation of Survey Data :

The computerisation of the data collected for Main Survey 1 was carried out as follows :

1.9.1 Collaboration with NIC :

As in the case of Pilot Survey, the computerisation of Main Survey 1 data was undertaken in collaboration with the National Informatics Centre (NIC), Hyderabad. The NIC extended its full technical cooperation and guidance in making available computers for data entry, developing software, cleaning of data and producing marginal totals for analysis.

1.9.2 Data Entry :

Since the arrangements for computerisation of data were already made (with the established procedures of the pilot survey) with the National Informatics Centre (NIC), Hyderabad, the data entry was carried out at NIC, Hyderabad during February and March, 1992. Four Data Entry Operators from outside were employed on daily-wage basis to do the work under the technical guidance and supervision of NIC.

The U.K. consultants on Evaluation who visited the project from 29.03.92 to 11.04.92 reviewed the progress made in the computerisation of data of Main Survey 1 with the project authorities and the technical experts of NIC. After examining the data entered into the computers the following suggestions were

made by the consultants to improve the accuracy and validity of the data and make the data amenable for advanced analysis.

- i) Cleaning of data due to the mistakes occurred in the data entry like wrong entry of data, leaving out data without entry, repeated entry etc.,.
- ii) Giving uniform teacher codes in Schedules 1, 4 and 5/6 as names of teachers were spelt differently in the three schedules.
- iii) Listing out teachers trained at DIET level and Mandal level separately.
- iv) To construct indices like
 - a) Environment/utilities index
 - b) Books index
 - c) Kits index
 - d) Educational equipment index
 - e) Furniture index in respect of each school(based on data in schedule 1)
- v) To construct:
 - a) Pupil-teacher ratio index and indices like
 - b) Crowding index in respect of each school(based on data in schedule 1 and schedule 2 (Part A))
- a vi) To convert some variables from string variables to numeric variables, and to change the codes to numbers.
- vii) To provide background variables for all data files.

The definitions and procedures adopted for the construction of the indices mentioned in iv and v above are given in Annexure-III.

Keeping in view the suggestions made by the UK consultants, the cleaning of data was carried out by the members of Evaluation Cell during the months of April and May 92 with the guidance of NIC.

The NIC developed marginal totals and indices in respect of each schedule during June 92 as per the guidelines provided through "Handbook of Analysis" prepared for pilot survey and revised by Evaluation Cell for Main Survey 1 and notes of the consultants during their visit to APPEP in March-April 92.

The first draft report on Main Survey 1 was prepared by the Evaluation Cell, based on the marginal totals produced by NIC and sent to the UK consultants on evaluation at Sussex, for their comments and suggestions. During the visit of the UK consultants to APPEP in Sept, '92 (from 15-09-92 to 25-09-92) the first draft report was discussed by the members of the Evaluation Cell in detail with the

consultants. Advanced analysis was carried out by the Evaluation Cell with the guidance of the U.K. consultants on Evaluation. The advanced analytical methods like cross tabulation of variables, use of tests of significance, multiple correlation and regression techniques were carried out with the use of SPSS PC+ package provided by the British Council Division, New Delhi. At the end of their visit, the consultants left a guidance note for writing Main Survey 1 report. The report was prepared accordingly with suitable modifications.

1.10 Summing up :

As data relating to various aspects of implementation of APPEP principles in schools were being collected, the survey was designed to focus different factors that influence the APPEP implementation viz, the locational areas of schools (Urban, Semi-urban, Rural and Tribal), the resources available in schools, the literacy status of parents, provision of APPEP inputs, community involvement etc. Further, the samples of APPEP and non-APPEP schools were having comparability on variables like management of schools, type of school buildings, ownership of school building, average annual income of parents etc.

The Evaluation Cell had the academic support of U.K. consultants on evaluation Prof. Colin Lacey, Dr. Barry Cooper and Dr. Harry Torrance of University of Sussex, U.K. in designing the survey, fixing up sample size, developing survey instruments, training of district H.R.D. Lecturers of DIETs, designing of computerisation and data analysis systems and preparation of report during their visits to APPEP in the years 1991 and 1992.

SECTION 2 : THE COMPARABILITY OF SAMPLES :

2.1 Background Variables :

The survey was designed in such a manner that the effects of the APPEP scheme could be demonstrated by comparing the two subsamples; sample A, those schools which had received training, classroom materials and support and sample B, those schools which had not yet been trained (N.B. some schools in the untrained sample B could have had extra classrooms and received some trained teachers by transfer).

In order to be sure that these comparisons reveal the effects of the scheme, it is necessary to demonstrate that the samples are made up of similar cross section of schools. In the following tables the samples are compared using the following background variables i) management of schools ii) location of schools iii) ownership of school buildings iv) type of school buildings v) literacy levels of parents vi) average annual income of parents vii) availability of rooms for classroom instruction and viii) years of service of teachers.

The data in respect of each variable selected for comparison were found to be as follows :

2.1.1. Schools By Management :

The number of APPEP schools and Non -APPEP schools included for study were under different managements as indicated in Table-2

TABLE 2
SCHOOLS BY MANAGEMENT
NUMBER OF SCHOOLS UNDER

MANAGEMENT	NUMBER OF SCHOOLS UNDER			
	No.of APPEP Schools	%	No.of Non-APPEP Schools	%
1. Government	15	6.70	21	7.61
2. Mandal Praja Parishad (MPP)	185	82.59	223	80.80
3. Municipal	17	7.59	20	7.25
4. Private Aided	6	2.68	7	2.54
5. Private Unaided (PUA)	1	0.44	5	1.80
Total	224	100.00	276	100.00

2.1.2. Schools by location (Area) :

The sample schools in the survey are located in different areas of districts viz urban, semi-urban, rural and tribal as indicated in Table 3.

TABLE - 3
SCHOOLS BY LOCATION (AREA)

Area	Number of schools under			
	No. of APPEP Schools	%	No. of Non-APPEP Schools	%
1. Urban	38	16.96	44	15.94
2. Semiurban	24	10.71	32	11.59
3. Rural	142	63.39	173	62.68
4. Tribal	20	8.94	27	9.78
Total	224	100.00	276	100.00

2.1.3. Ownership of school buildings :

The position of ownership of buildings in the 500 schools is as given in Table 4.

TABLE 4
OWNERSHIP OF SCHOOL BUILDINGS

Nature of ownership of School buildings	No. of APPEP Schools	%	No. of Non-APPEP Schools	%
1. Own	193	86.17	240	86.96
2. Rented	15	6.70	20	7.24
3. Rent free	16	7.13	16	5.80
Total	224	100.00	276	100.00

2.1.4. Type of school buildings :

The 500 schools have different types of buildings as indicated in Table 5.

TABLE 5
TYPE OF SCHOOL BUILDINGS

Type of Building	No. of APPEP Schools have The Building	%	No. of Non-APPEP Schools have the Building	%
1. Pucca	179	79.91	219	79.36
2. Semi Pucca	32	14.29	35	12.62
3. Thatched	8	3.57	12	4.34
4. Open air	5	2.23	10	3.68
Total	224	100.00	276	100.00

2.1.5. Schools by literacy levels of majority of parents :

The schools are distributed by the literacy levels of majority of parents of children (father and mother separately) as indicated in Table 6.

TABLE - 6**SCHOOLS BY LITERACY LEVELS OF MAJORITY OF PARENTS**

Literacy Level of Majority of Parents	No. of APPEP		No. of Non-APPEP	
	Schools	%	Schools	%
1. Male :				
Literate	64	28.57	83	30.07
Illiterate	160	71.43	193	69.93
Total	224	100.00	276	100.00
2. Female :				
Literate	28	12.50	26	9.42
Illiterate	196	87.50	250	90.58
Total	224	100.00	276	100.00

2.1.6 Schools by average annual income of parents :

The average annual income of parents of the children studying in the 500 schools at the time of survey was as given in Table - 7

TABLE - 7**SCHOOLS BY AVERAGE ANNUAL INCOME OF PARENTS**

Average Annual Income (in Rupees)	Number of Schools under			
	No. of APPEP Schools	%	No. of Non-APPEP Schools	%
< 6000	148	66.07	174	63.04
6000 - 12000	73	32.59	100	36.23
> 12000	3	1.34	2	0.72
Total	224	100.00	276	100.00

2.1.7. Rooms index in schools :

To make comparison of availability of rooms in APPEP and Non - APPEP schools, a rooms index was computed. In the computation, the number of large rooms (halls) in each school was multiplied by 2 (two) (giving weightage to rooms) and the resultant figure was added to the number of normal sized classrooms. This is done based on the assumption that a large room (hall) will accommodate at least two classes. Afterwards, the average number of classrooms (means) in APPEP and Non - APPEP schools are worked out separately. This mean is taken as rooms index. The means are as shown in Table - 8 :

TABLE - 8**ROOMS INDEX IN SCHOOLS**

Schools	Number	Rooms Index (Mean)
APPEP	224	4.88
NON - APPEP	276	4.76

2.1.8. Length of service (in years) of teaching staff :

The years of service of teachers working in APPEP and Non - APPEP schools are as given in Table - 9.

TABLE - 9
NUMBER OF TEACHERS WITH DIFFERENT YEARS OF SERVICE

No. of Years of Service	Number of Teachers Working in			
	APPEP Schools	%	Non - APPEP Schools	%
0-5	204	22.54	274	23.56
6-10	130	14.36	210	18.06
11-15	87	9.61	108	9.29
> 15	484	53.49	571	49.09
Total	905	100.00	1163	100.00

The data in tables 2 to 9 indicate that the APPEP schools and Non - APPEP schools included in the survey are well matched for comparison in respect of all the above variables since the difference in percentages of two kinds of schools under each variable or sub-variable is very small.

2.2 Tests of Significance for the differences in samples :

The difference in the values of the variables for the two samples viz., APPEP and Non-APPEP schools has been tested for significance (at 0.05 level of significance) and the results are as follows.

TABLE - 10
TESTS OF SIGNIFICANCE FOR THE DIFFERENCES IN SAMPLES

Variables - Test of Significance	Significance Value *	Result
1. Management	0.709	Not significant
2. School Area (Location)	0.96	-do-
3. Ownership of School Building	0.82	-do-
4. Type of School Building	0.73	-do-
5. Literacy Status of parents i) Males	0.65	-do-
ii) Females	0.33	-do-
6. Average annual income	0.57	-do-
7. Rooms index (t-test)	0.69	-do-
8. Years of Service (t-test)	0.10	-do-

Note: * The difference in the values of the variables is significant if the significance value is less than 0.05.

2.3 Conclusion :

It is important to notice that although the samples have been tested for eight relevant background variables, none shows a statistically significant difference. It follows that if we find significant differences in outcome variables we can be fairly confident that they have occurred because they are effects of the APPEP scheme and not because the samples of schools were initially made up of schools which were significantly different. We have kept this aspect of the analysis under constant review. Where it is not safe to make the assumption of no initial difference between samples, we have included additional checks on the validity of outcome measures.

SECTION 3 : IMPLEMENTATION OF APPEP IN SCHOOLS

3.1 Levels of Implementation :

The outcomes of an innovation depend on two major characteristics of that innovation :

1. The extent to which the innovation is actually implemented.
 - If the innovation is not implemented or implemented in a much adulterated form, we can expect few of the desired outcomes.
2. The effectiveness of the innovation in bringing about the intended outcomes.

It is possible that even if an innovation is fully implemented it is incapable of producing the desired results.

It is important that an evaluation which is designed to provide information for decision maker distinguishes between these two characteristics. In this, we will focus on the extent to which the APPEP scheme has been implemented. In the next section we will focus on the outcomes and comment upon the effectiveness of the scheme.

The implementation of APPEP can be evaluated at two levels :

1. The implementation by the trainers and the administration, in other words implementation by the "delivery system".
2. The implementation in the classroom by the teachers who have been trained and are in receipt of support.

The full implementation of the scheme by the delivery system would consist of the following items.

- an initial training (10 days at Mandal level, 18 days at DIET level)
- a 3-day follow-up training, during the first year.
- 6 T.C. meetings (of one day each) during the first year and subsequent years.
- classroom materials, worth Rs. 500/- delivered soon after training.
- a handbook of possible classroom ideas (teacher's guide)
- visits, demonstration lessons and support from MEOs
- mutual support and collaboration within schools
- T.C. facilities (some schools)
- construction of classrooms (some schools)

The first part of this section will report on some aspects of the implementation of APPEP by the delivery system.

3.2 The Implementation of APPEP by the delivery system :-

In a scheme as large and complex as APPEP, it is inevitable that some aspects of the programme are not delivered on time or that some schools receive a training that is not as satisfactory as the norm. It will also be the case that some teachers miss the training sessions through illness or transfer. In 1990 to 1991 there were a number of external events which involved teachers outside their schools and prevented the training timetable from being realised on time. In fact some of the courses were delayed until September 1991. Two of these external events, the census and the general election, caused delays which disrupted the delicate sequencing of events. This meant that teachers who received initial training had to wait many months before T.C. meetings were held and in some cases they did not receive the 3- day follow-up course until the next year. In addition, there are cases where classroom materials were not received until long after the initial training.

It might seem that 1990-91 is an atypical year and therefore not a good year in which to judge the success of a project. However, it must be remembered that there is no such thing as a typical year and that there will always be events that disrupt ambitious plans. The purpose of the evaluation is to attempt to document what the project has achieved despite the problems that have arisen from external sources. In this subsection we report on the implementation of the project by using information from the HRD cell of the project and questionnaire responses from teachers on the effectiveness of their training and the support that they have received.

3.2.1 Shortfalls in implementation :

Training :

In the 224 APPEP sample schools, there were 928 teachers and of them 721 teachers (77.7 %) had undergone APPEP initial inservice training by the time of this survey. The training took place between July '90 and June '91. So, over 20 % of the teachers in APPEP sample schools did not undergo the APPEP training till December '91. This unforeseen delay in training means that the APPEP trained sample is diluted by untrained teachers. This will have the effect of diminishing any effects of training. This should be borne in mind while interpreting the results of the survey reported in later sections.

Construction of additional classrooms :

While 314 additional classrooms were provided to the 224 APPEP sample schools from 1989-90 to December '91, 321 classrooms were added to the 276 non-APPEP sample schools during the same period. This means that APPEP schools are provided 1.4 classrooms on an average, while non-APPEP schools are provided 1.16 classrooms on an average. This represents a substantial overall improvement in the teaching accommodation in schools but because the additional classrooms were provided to both samples this factor should not affect the comparability of the two samples.

3.2.2 Usefulness of APPEP Initial Inservice Training & 3-day followup courses

The opinions of teachers on usefulness of APPEP training and helpfulness of the 3-day followup courses for the implementation of APPEP principles in classrooms were as indicated in tables - 11 and 12. The corresponding percentages on the opinions at the time of pilot survey are also given in the tables.

TABLE - 11

USEFULNESS OF APPEP INITIAL INSERVICE TRAINING

Usefulness of Training	No. of Teachers Expressed the Opinion	Percent (%)	Percentage at the Time of Pilot Survey
Very useful	288	39.94	63.18
Of some use	410	56.87	36.82
Of no use	9	1.25	0.00
Total :	707		98.06
Non-response	14		1.94

The data in table-11 reveal that nearly 40 % of the teachers who had undergone APPEP initial inservice training felt that the training was 'very useful' in the implementation of APPEP principles in classrooms. It can be inferred that 60 % felt the need for improving the usefulness of some aspects of the training. It is important to notice that teachers' satisfaction with the training seems to have declined in the year since the pilot survey. The percentage who felt that the initial training was 'very useful' fell from 63 % in April 1991 to 40 % in December 1991. We will follow-up some of the possible effects of this decline in usefulness of the training, later in the analysis.

TABLE - 12

HELPLESSNESS OF THE 3-DAY FOLLOWUP COURSES

Helpfulness of followup course	No. of teachers expressed the opinion	Percent (%)	% at the time of pilot survey
A lot	151	20.94	56.09
Quite a lot	477	66.16	33.04
Not at all	37	5.13	10.87
Total :	665	92.23	100.00
Non-responses and invalid response	56	7.77	-

Table 12 describes the extent to which the 3-day follow-up courses, held after the initial training, were found to be helpful. The first overall impression is that the 3-day course does not receive as favourable a response as the initial training, only 21 % of teachers found their course to be in the most helpful category ("a lot"). However, it must be remembered that many teachers did not receive the 3 day followup course during 1990-91. The response has reduced from 721 to 665. However, it might be the case that some teachers have responded to this question, despite the fact that they have not experienced the course. This will be taken into account in future analyses when the dates of the 3-day courses are entered into the computers. In the meantime it will be important to ensure

that the 3-day courses are held soon after the initial training and that they are of good quality.

3.2.3 Inter relationship between the opinions on the two courses :

The inter-relationship between the opinions of teachers on the usefulness of APPEP initial inservice training and the helpfulness of the three-day followup courses was cross- tabulated in table - 13 and tested for the significance in the difference of opinions.

TABLE - 13

APPEP INITIAL INSERVICE TRAINING AND 3-DAY FOLLOWUP COURSES				
Usefulness of APPEP initial inservice Trg.	Helpfulness of 3-day followup courses			
	A lot	quite a lot	not at all	Total (%)
Very useful	128 (19.3 %)	144	5	277 (41.8)
Of some use	22	327 (49.4 %)	297	378 (57.1)
Of no use	0	4	3	7 (1.1)
Total :	150	475	37	662
(%)	(22.7)	(71.8)	(5.6)	(100.00)

The data in table - 13 indicate that nearly 19 % of APPEP trained teachers felt that APPEP training was very useful and 3- day followup course was helpful "a lot". About 49 % of teachers felt that APPEP training was of "some use" and three-day followup course was helpful "quite a lot". When tested for the significance of the difference in opinions through "chi square" test, it was found to be statistically significant at 0.05 level. This indicates that there is a tendency for teachers who found the initial training to be useful, also to find the 3-day course helpful. One consideration affecting the usefulness of the initial training may be whether it includes topics felt to be important by the teachers.

3.2.4 Training in Assessment :

The need for provision of training in pupil assessment procedures during the APPEP initial inservice training courses has been felt by 80.50 % of teachers in APPEP schools. This is supported by 76.46 % of teachers in APPEP schools who feel that there is a need to change the traditional methods of examination for the effective implementation of APPEP principles in schools. Unfortunately the initial training courses did not support the teachers in this respect; 71 % of teachers said that they did not undergo any training in assessment in the APPEP training courses. This is an indication of the importance of developing assessment procedures that encourage the adoption of project principles.

It is important to recognise that while a majority of teachers feel the need for new methods of assessments relevant to APPEP they do not envisage a complete discarding of traditional methods. 56 % of teachers in APPEP schools still felt that present methods of assessment "are useful" in APPEP.

3.2.5 Handbook and Classroom Materials :

The teachers' handbook supplied to teachers before undertaking initial training is an important resource in the post-training period. It acts as a reminder and stimulus. 87 % of teachers from the APPEP trained sample reported that the handbook was available to them and 86 % reported that they were able to use it. However, while some districts reported that the handbook was available in 100 % of cases, others were as low as 57 %.

The materials made available to schools are another important support to teachers in implementing APPEP principles. 84 % reported that the materials were available and 80 % felt that they were able to use them properly. However, there was once again a considerable range in availability 52 % to 100 % and an even larger range in teachers ability to use them 42 % to 97 %.

Clearly there will be some advantage in checking on the availability of handbooks and materials in some districts where the reported availability is low.

3.2.6. Participation in T.C. meetings :

The Teachers' Centres have been established for groups of 20 to 30 teachers in Mandals that are covered by the project in all the districts in a phased manner to serve as a forum for teachers to exchange their academic experiences and ideas in the implementation of APPEP principles in schools. In an academic year, each T.C. is expected to organise 6 meetings for the teachers of constituent schools. Teachers' Centre meetings have a special significance within APPEP. The T.Cs have been provided with storage facilities, extra materials for construction of classrooms, teaching aids etc. The headteacher of the school in which T.C. is located is the Secretary of the T.C. The T.C. meetings are organised for the teachers of constituent schools after they have undergone APPEP initial inservice training. The participation of teachers of APPEP schools and non-APPEP schools in different activities of TC meetings was as given in table 15. For the purpose of comparison, the percentage of teachers participated in those activities at the time of pilot survey is given in parenthesis.

TABLE 14
PARTICIPATION OF TEACHERS IN T.C. MEETINGS
Percentage of Teachers Participated

Activity	Percentage of Teachers Participated	
	APPEP	Non-APPEP
1. Presenting demonstration lessons	56.73 (58.30)	47.65 (35.82)
2. Attending demonstration lessons given by other teachers	92.79 (84.87)	73.52 (62.06)
3. Exchanging ideas	91.40 (84.50)	73.52 (60.99)
4. Display of pupils' work	63.52 (75.28)	24.54 (25.53)
5. Field trips with other schools	21.78 (28.78)	15.81 (8.51)
6. Preparation of teaching/ learning aids	80.56 (85.33)	49.95 (40.45)
7. Preparation of institutional plans	51.60 (61.25)	27.45 (28.37)
8. Preparing unit or period plans	73.75 (79.72)	41.50 (37.45)

The data in table 14 reveal that the teachers of APPEP schools are participating more frequently in important activities at Teachers' Centres like presenting demonstration lessons, exchanging ideas, display of pupils' work, preparing teaching / learning aids etc, than teachers in non-APPEP schools. The level of participation of teachers in the activities of T.C. meetings has been more or less the same both during pilot survey (figures in parenthesis pertain to pilot survey) and Main Survey 1. The activities of teachers of non- APPEP schools in Teachers' Association (T.A.) meetings, pay centre meetings conducted once in a month are considered for the purpose of comparison with the activities of teachers of APPEP schools in T.C. meetings. In T.A. meetings / pay centre meetings, the teachers assemble at a central school and carry out academic discussions to some extent on the educational innovations and problems of classroom instruction, and present demonstration lessons. However, most of the time in these meetings is devoted for discussions on administrative problems and service matters of teachers.

3.2.7 Indices on participation and involvement in T.C. meetings :

Based on the reported participation and involvement of teachers in T.C. meetings, indices were built for individual teachers (both APPEP and non-APPEP) by assigning scores to different activities as follows :

	Activity	Scores
1.	Presenting demonstration lessons	0 or 2
2.	Attending demonstration lessons	0 or 1
3.	Exchanging ideas	0 or 1
4.	Displaying children's work	0 or 2
5.	Organising field trips with other schools	0 or 2
6.	Preparing teaching / learning aids	0,1 or 2
7.	Preparing institutional plans	0 or 1
8.	Preparing unit or period plans	0,1 or 2
	The range of values for the index is	0 to 13

The distribution of APPEP and non-APPEP schools based on the value of index of participation and involvement of teachers in T.C. meetings was as given in table - 15.

TABLE - 15
DISTRIBUTION OF SCHOOLS BASED ON INDEX OF PARTICIPATION AND INVOLVEMENT OF TEACHERS IN T.C. MEETINGS.

Range of Index value	No.of APPEP schools	%	No.of Non-APPEP schools	%
0 - 2	9	4.11	42	16.03
2 - 4	21	9.59	63	24.05
4 - 6	38	17.35	56	21.57
6 - 6.8	21	9.59	32	12.21
6.8 - 8.0	33	15.07	25	9.54
8.0 - 9.8	59	26.94	29	11.07
9.8 - 13.0	38	17.35	15	5.73
Total :	219		262	

As can be seen from the data in table - 15, the professional involvement of teachers working in APPEP schools in the T.C. meetings is at an enhanced level when compared with that of the teachers of non-APPEP schools. This is based on the fact that 44.29 % of APPEP schools (as against 16.80 % of non-APPEP schools) have an index value of more than 8.0 (high level), 42.01 % of APPEP schools (as against 43.32 % of non-APPEP schools) are with index values lying between 4.0 and 8.0 (medium level) and 13.70 % of APPEP schools (as against 40.08 % of non-APPEP schools) have an index value of less than 4.0 (low level). As such, it can be reasonably stated that the participation and involvement of APPEP teachers in T.C. meetings was more represented in medium and high levels when compared to the low and medium levels of participation of teachers in non- APPEP schools.

3.2.8 MEOs visits to schools :

The Mandal Education Officers (MEOs) are the key persons responsible in the implementation of APPEP principles in schools. They undertake visits to schools quite frequently and provide necessary academic guidance to the teachers through presentation of demonstration lessons, preparation of unit or lesson plans etc. for the effective implementation of project principles and approaches. As per the data collected in M.S. I, the MEOs undertook visits to the sample schools during

the last one year as indicated in table -16 (based on information furnished by teachers working in those schools).

TABLE - 16
MEOs VISITS TO SCHOOLS
Number of Schools

No. of Visits	APPEP Schools		Non-APPEP Schools	
	Number of Schools	%	Number of Schools	%
None	15	6.76	22	7.97
Once	29	13.06	37	13.41
Twice	58	26.13	57	20.65
Thrice or more	114	51.35	158	57.25

The data in table - 16 reveal that when the number of visits by MEO's was considered, 26.13 % of APPEP schools were visited "twice" in the year, while 20.65 % of non-APPEP schools were visited as many times. In respect of other visits, the percentage of schools visited by MEOs-either APPEP or non-APPEP was more or less the same. This result is not necessarily a surprise since M.E.Os have a wide variety of tasks and heavy workload. Also they have not been instructed to visit APPEP schools more frequently. However, it might be necessary to reconsider this policy in the light of evidence to be provided later.

3.2.9 Support by Headteacher and other colleagues :

Teachers also answered questions on the degree of support that they experienced from head teachers and colleagues. The full implementation of APPEP would require that a sharing of ideas and mutual support developed among teachers. The results are shown in tables 17 and 18.

TABLE - 17
SUPPORT RECEIVED FROM THE HEADTEACHER IN IMPLEMENTING APPEP PRINCIPLES

Nature of support	Percentage of teachers reported
Very good support	22
Adequate support	57
Poor support	3
None	0
Non response	17

TABLE - 18
SUPPORT RECEIVED FROM THE COLLEAGUES IN IMPLEMENTING APPEP PRINCIPLES

Nature of support	Percentage of teachers reported
A lot of support	9
Quite a lot of support	78
None	12
Non response	2

These results show that although the idea of mutual support of colleagues is beginning to grow, it lags behind the more formal notion of support from head-teachers. However, one peculiar feature in primary schools is that the headteacher has to attend to the teaching work in addition to his administrative duties of maintenance of various registers, preparation of pay bill etc. This is because there

is no separate cadre of head teachers in primary schools. One of the teachers preferably a senior teacher is appointed as head teacher. As such he hardly finds time to provide academic guidance to his teacher colleagues. There is clearly room for a greater development of both kinds of support and in the last part of this section there is evidence to show that this development could be important to the development and sustainability of APPEP.

3.2.10 A review of Implementation by the delivery system :

It is clear that in the year preceding Main Survey 1 the Andhra Pradesh Primary Education Project suffered from a number of delays and administrative hold-ups. Despite these problems, nearly 80 % of the target population received training before the Main Survey 1 was undertaken and about 40 % felt that the training was 'very useful'. The effects of this training are clearly visible in the degree of participation and involvement of APPEP trained teachers in Teacher Centre activity. This indicates that the training has helped teachers to understand their new roles in classroom instruction which have been further developed in T.C. meetings. We would expect that this will contribute to the degree of classroom implementation of the project. The 3-day follow-up course is less well regarded by teachers (21 % 'very helpful') and there is clearly an incentive to rethink and revitalise this course. M.E.Os visits and support are not especially directed towards APPEP schools. Yet there is evidence (to be presented later) that M.E.O. support could be very influential in encouraging teachers to implement some aspects of APPEP in the classroom. These shortcomings within the "system implementation" of the project are pointed out because it is important to have a measure of the degree of implementation to hold against the outcomes.

We will now proceed to explore the direct outcomes of training, implementation of the project principles in the classroom.

3.3 Implementation of APPEP within the classroom :

We have argued that implementation of an innovation consists of two phases. 1) implementation by the system and 2) uptake and implementation by teachers in the classroom. We will now examine the extent to which APPEP principles are applied in the classroom.

The APPEP principles are an attempt to describe in a shorthand way, the kinds of activities and practices that A.P. educationists and Govt. of Andhra Pradesh administrators, supported by Govt. of India and Overseas Development Administration (ODA) believe will enhance the educational experiences of primary pupils in A.P. and bring about better learning and school attendance. It was never intended that APPEP principles should completely replace traditional and established practices but it is hoped that a substantial modification will take place.

3.3.1 : Time for traditional methods :

The teachers in the APPEP trained sample of schools were asked what proportion of their time they believed should be retained for more traditional approaches to teaching. It is clear that while there is still substantial support for traditional methods the APPEP methods are supported by all the teachers who have undergone training.

TABLE - 19
PERCENTAGE OF TIME TEACHERS BELIEVE TO BE DEVOTED
FOR TRADITIONAL METHODS

Percentage of time	0	25	50	75	100
Percentage of APPEP trained teachers reported	4	32	42	20	0

The above data reveal that a majority of APPEP trained teachers believe that traditional methods should take up atleast 25 % of classroom time. It is now important that we look at the reported levels of implementation.

Implementation within the classroom :

The teachers questionnaire (Schedule 5) asked questions on the implementation of all 6 APPEP principles. (See page 3) However, since some of the principles were investigated using open ended questions it is only possible to report on some of them at this time. The two chosen for report are group work and the display of children's work.

3.3.2 Group work in schools :

The data on this aspect as reported by teachers in APPEP and non-APPEP schools were set out in Table - 20.

TABLE - 20
CONDUCT OF GROUPWORK IN SCHOOLS

No. of times group work conducted in the past week	APPEP Schools		Non-APPEP Schools					
	Lang.	Maths	ES I	ES II				
0	265	268	277	272	669	676	692	687
%	36.75	37.17	38.41	37.72	74.92	74.94	76.72	76.16
1-2	261	236	253	258	173	149	157	160
%	36.27	32.80	35.16	35.85	19.37	16.39	17.27	17.60
3 or more	195	217	191	191	52	77	53	55
%	27.98	30.03	26.43	26.43	5.71	8.67	6.01	6.24
Total no. of teachers	721	721	721	721	894	902	902	902

The data in table-20 indicate that about 37 % of teachers in APPEP schools and 75 % of teachers in Non APPEP schools report that they did not carry out group work. These reports can be assumed to be accurate because the social pressures on APPEP trained teachers oblige them to report that they are carrying out group work. But there are no social pressures obliging non-APPEP teachers to report that they are not implementing the innovation. However, when the reported frequencies of those claiming to be carrying out group work are examined, there are clear signs of exaggeration. Some report frequencies that are unlikely to be practical. More importantly teachers in schools that have not yet been trained report frequencies that are most unlikely to be true. Reports

from case study work and the observational data reveal that untrained teachers may group pupils but then fail to use the groups pedagogically. It is possible to use the untrained sample as a basis for estimating, within the trained sample, the amount of exaggeration that is occurring. The most rigorous assumption is that all untrained teachers are exaggerating when they claim to be using group work. If this assumption seems unduly severe it should be remembered that the pressure to exaggerate is more pronounced on APPEP trained teachers precisely because they have been trained and are expected to be carrying out group work. Using this assumption on the language columns we have :

63 % claiming to use group work in APPEP schools

(-) 25 % claiming to use group work in non-APPEP schools

38 % as a more reliable estimate of those who

actually use group work in APPEP schools.

The overall result (for language) becomes :

Estimates :

37 % of teachers are not carrying out group work after training.

25 % of teachers claim to carry out group work but are likely to be exaggerating in their claims.

38 % of teachers claim to carry out group work and can be reliably assumed to be doing so.

This pattern is very similar to the results of the pilot study and since these two surveys involved completely independent samples of schools we can regard these as a replicated result and therefore a reliable finding.

3.3.3 Display of children's work :

The display of children's work in classrooms is an important classroom practice emerging from APPEP principles. Display of children's work in classrooms was reported by teachers in the four school subjects as given in table - 21

TABLE - 21

DISPLAY OF CHILDREN'S WORK IN SCHOOLS

Subject	Number of Teachers in			
	APPEP Schools	%	Non-APPEP Schools	%
Languages	445	61.71	193	17.64
Mathematics	444	61.58	190	17.36
E S I	370	51.31	161	14.71
E S II	415	57.55	177	16.17

The data in table 21 indicate that more than 50.0 % of APPEP trained teachers displayed children's work in classrooms atleast once during the previous week. If we allow for exaggeration, the percentage of APPEP trained teachers displaying children's work remains at more than 41 %, indicating that this aspect of APPEP is implemented more than group work.

3.3.4 Index on display of children's work in classrooms :

The index on display of children's work in classrooms by teachers of APPEP and non-APPEP schools was also constructed separately. The distribution of schools based on the index was as shown in table - 22.

TABLE - 22
DISTRIBUTION OF SCHOOLS BASED ON INDEX OF DISPLAY OF CHILDREN'S WORK IN CLASSROOMS

Range of index value on display of children's work	No. of APPEP schools	%	No.of non-APPEP schools	%
0 - 0.2	36	16.07	166	62.88
0.2 - 0.7	4	1.79	14	5.30
0.7 - 2.5	37	16.52	25	9.47
2.5 - 4.7	52	23.21	28	10.61
4.7 - 8.0	41	18.30	20	7.58
8.0	54	24.11	11	4.17
Total :	224		264	

The index in table-22 combines the display of children's work in all subjects. It clearly demonstrates the marked difference between the samples. 65.62 % of APPEP schools have an index value of more than 2.5 while the corresponding percentage in non-APPEP schools is 22.36.

The self-reported data from teacher questionnaires demonstrate quite clearly that APPEP trained teachers see themselves as implementing important aspects of the scheme more frequently than untrained teachers from a sample of similar schools. This is an important finding in itself. However, we have argued earlier that this data is prone to exaggerated claims in terms of the extent to which APPEP is implemented. We have argued that the claims made by untrained teachers gives us a proxy measure of the extent of exaggeration occurring in the trained group of teachers. We can now bring together the results for 'group work' and the display of pupils' work.

TABLE - 23
ESTIMATES OF IMPLEMENTATION

	Group Work	Display of Children's work
Average percentage of APPEP teachers claiming to implement this aspect of the innovation.	62 %	58 %
Average percentage of non APPEP teachers claiming to implement this aspect of innovation. (Proxy measure of exaggeration)	24 %	16 %
Estimate of average percentage of APPEP teachers who claim to be implementing and can reliably be assumed to be doing so.	38 %	42 %

It is interesting to note that although the number of teachers claiming to display children's work is smaller than that claiming to implement group work, the estimate

of reliable implementation is higher (42 % of 38 %) Displays of children's work are very public compared to group work. They can be seen to be on the wall or not. It follows that levels of exaggeration are lower. This could be seen as a validity check on this result. This result is also very similar to that recorded by the pilot study. Although the actual implementation level is somewhat higher in M.S.1, this can be regarded as an important validity check.

This result is strong evidence that APPEP is beginning to take root in Andhra Pradesh primary schools after training has taken place. However in order to increase the strength of this claim we now present the results of classroom observations made in both APPEP and non APPEP schools. In order to increase the validity of these observations the observer made two requests to the headteacher. The first, made on arrival, was to observe a class. The second, made after this observation was complete, was to observe a second class. We feel that in this second instance the teacher had far less time to organise an APPEP appropriate lesson for the special purpose of impressing the visitor. The results presented here are of the second lessons.

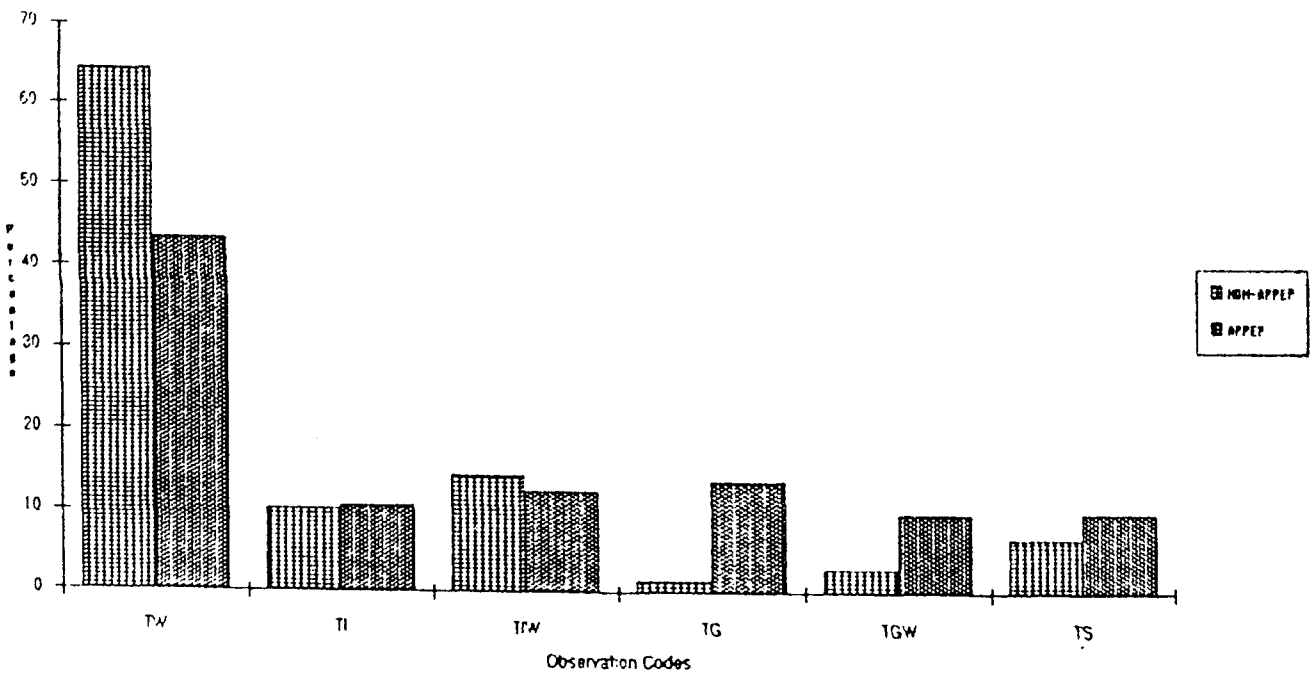
3.3.5 Classroom observation:

The District HRD Lecturers made classroom observations in the sample schools (both APPEP and non-APPEP) to measure traditional and APPEP activities being carried out by the teachers in the teaching-learning process. For this, three dimensions of teacher behaviour and three dimensions of pupil behaviour are taken for observation. Teacher talk, nature of teacher talk and pedagogic activities are the three dimensions of teacher behaviour. Organisation of pupils for learning, pupil talk and pupil learning activity are the three dimensions of pupil behaviour. Under each dimension, different activities are listed out and codes assigned to them. The codes are given in Schedule IV (classroom observation) in Annexure-II. The codes are intended to make possible the recording of classroom activity every two minutes. In a period of 40 minutes duration, 20 observations are recorded on each dimension during the classroom observation.

- The following bar charts present the observation data for each of the 6 dimensions.
- The codes for each dimension are explained under each bar chart.
- The codes marked with * are those codes intended to relate most closely to APPEP principles.
- The exception to this is teacher dimension 3 which was intended to give an indication of the variety of teaching methods used.
- The best way to begin to read the bar charts is to locate the *s and examine those codes in the bar charts. The APPEP column should be higher.

Teacher Behaviour :
Dimension 1 : Teacher talk.

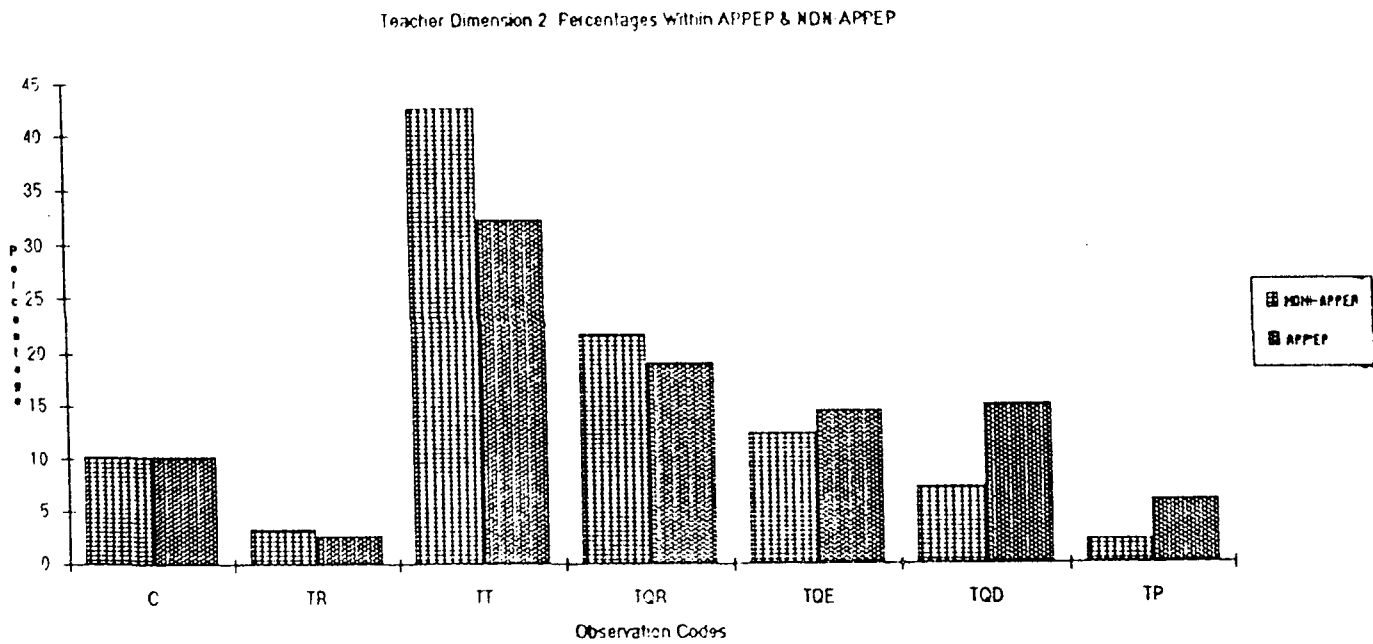
Teacher Dimension 1: Percentages Within APPEP & NON-APPEP



- | | | |
|--------------------|---|------|
| Teacher talks to : | 1. Whole Class | TW |
| | 2. Individuals | TI * |
| | 3. Individuals but for benefit of whole class | TIW |
| | 4. Group | TG * |
| | 5. Groups but for benefit of whole class | TGW |
| Teacher silent | | TS |

Dimension 2 : Nature of teacher talk

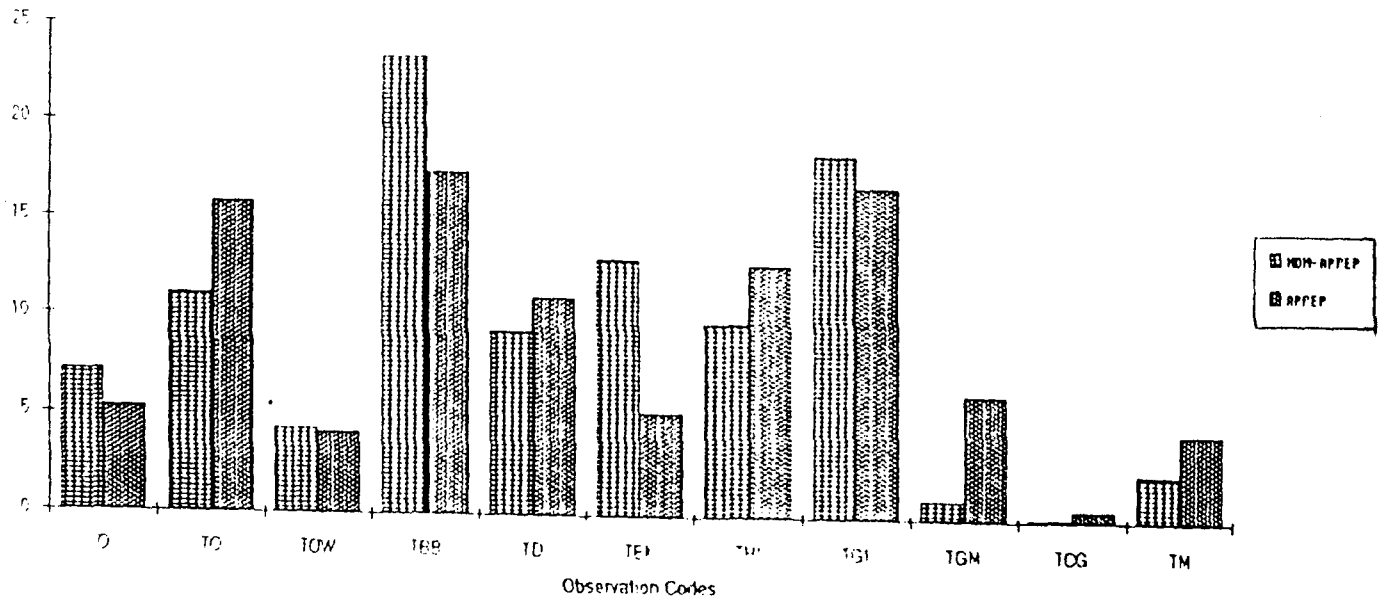
Detailed nature of teacher talk e.g. questioning or reprimanding etc.



- | | | | |
|----|------------------|--|-------|
| 1. | Not talking | | O |
| 2. | Reprimanding | | TR |
| 3. | Talking | | TT |
| 4. | Questioning: | Checking recall of knowledge | TQR |
| | | Encouraging individual pupil responses | TQE * |
| | | Generating discussion | TQD * |
| 5. | Teacher praising | | TP * |

Dimension 3

Teacher Dimension 3 Percentages Within APPEP & NON APPEP

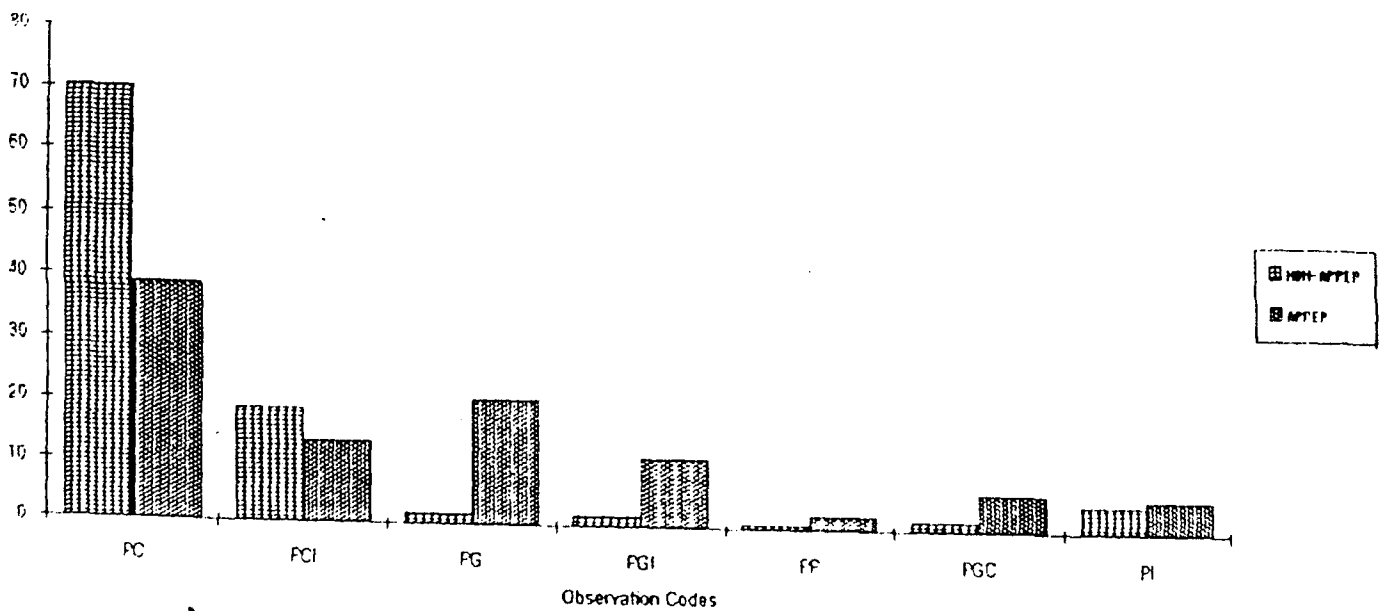


- | | | |
|-----|--------------------------------------|-----|
| 1. | No pedagogic activity | O |
| 2. | Observing | TO |
| 3. | Doing own work (related to lesson) | TOW |
| 4. | Writing on blackboard | TBB |
| 5. | Demonstrating or displaying work | TD |
| 6. | Reading from book | TBK |
| 7. | Helping individual (or small group) | THI |
| 8. | Giving instruction | TGI |
| 9. | Giving material | TGM |
| 10. | Conducting games | TCG |
| 11. | Marking (or correcting pupils' work) | TM |

Pupil Behaviour:

Dimension 1 : Organisation of pupils for learning :

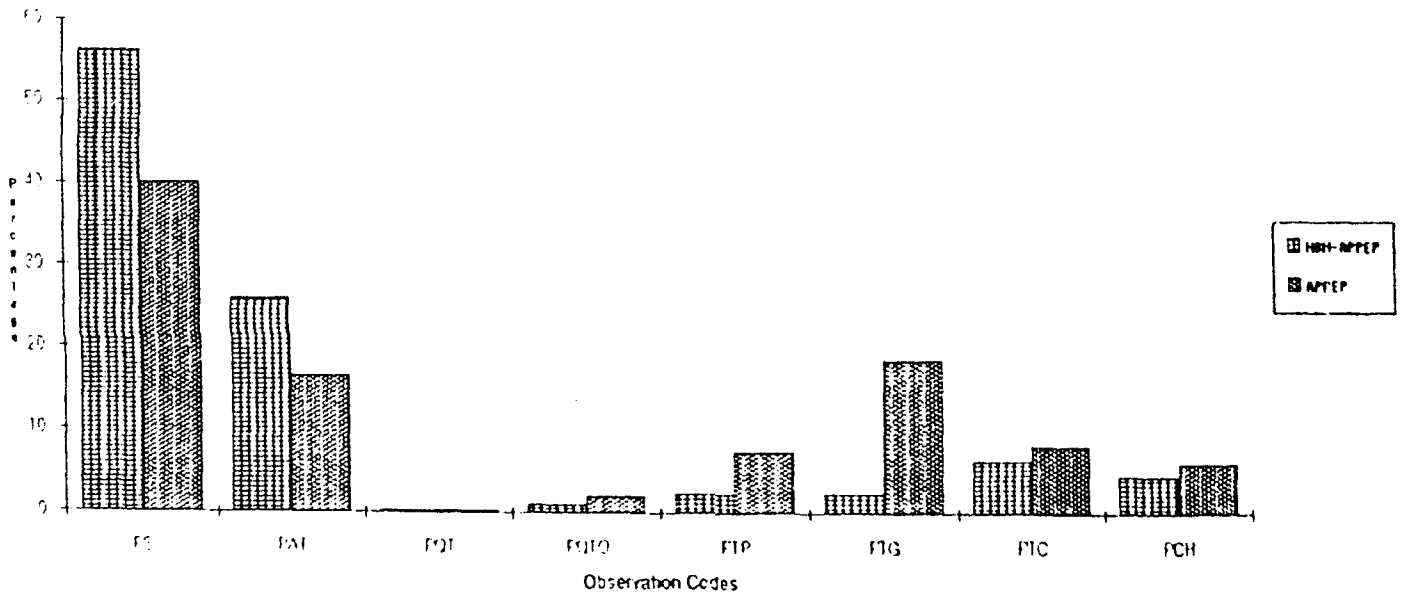
Pupil Dimension 1 Percentages Within APTEP & NON-APTEP



- | | | |
|----|---|-------|
| 1. | Organised and working as a class | PC |
| 2. | Organised and working as class but working individually | PCI |
| 3. | Organised and working in a group | PG * |
| 4. | Organised in groups but working individually | PGI * |
| 5. | Organised and working in pairs | PP * |
| 6. | Organised in groups but working as a class | PGC |
| 7. | Organised and working individually | PI |

Dimension 2 : Pupil talk (Type of talk) :

Pupil Dimension 2 Percentages Within APPEP & NON APPEP



Pupil silent

PS

Pupil talking to :

1. Answering teacher

PAT

2. Questioning teacher (Content)

PQT *

3. Questioning about organisation

PQTO *

4. Talking in pairs

PTP *

5. Talking in groups

PTG *

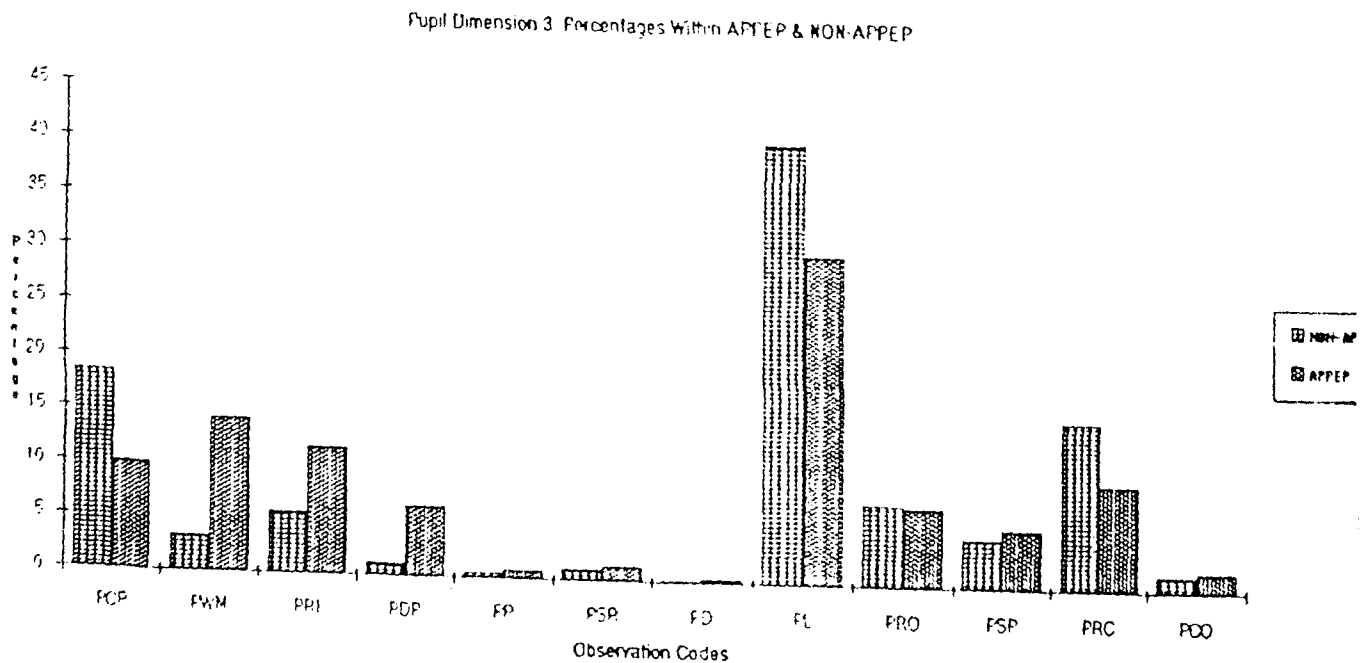
6. Talking to whole class

PTC

7. Pupils chatter

PCH

Dimension 3 : Pupil learning activity :



- | | | |
|-----|--|-------|
| 1. | Copying from blackboard or chart from book, from dictation | PCP |
| 2. | Working with materials | PWM * |
| 3. | Recording own information | PRI * |
| 4. | Drawing pictures | PDP * |
| 5. | Playing | PP * |
| 6. | Singing or reciting | PSP |
| 7. | Dancing | PD |
| 8. | Listening | PL |
| 9. | Pupil reading (out) | PRO |
| 10. | Pupil solving problems | PSP * |
| 11. | Repeating in chorus | PRC |
| 12. | Calling out to teachers or pupils | PRO |

The 6 bar charts demonstrate almost without exception that the APPEP designated activities are put into practice more frequently by the APPEP trained teachers than by the untrained teachers. The major exception is in teacher dimension 3 where the activities themselves are not the crucial consideration. The purpose of this indicator becomes clear in the next set of bar charts.

3.3.6 Indices on classroom observation data :

The next set of bar charts uses the same data but arranges it differently. The data is organised into indices which range between 0 and 1. In all cases the more the APPEP methods have been used by a teacher, the closer that teacher gets to scoring 1. These indices are worked out to indicate the proportional measures of time devoted by teachers and pupils on various dimensions of their behaviour in the classroom.

Teacher behaviour :

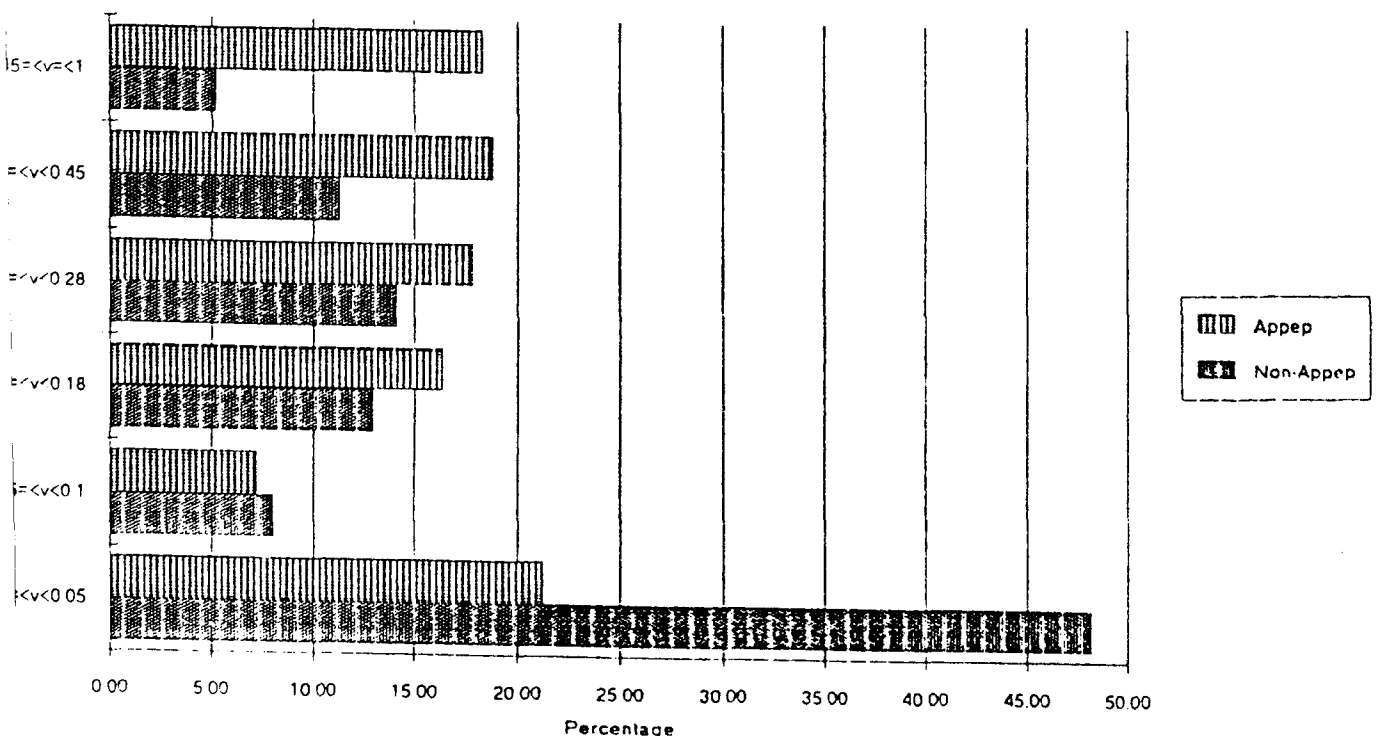
Dimension 1

Index on teacher talk :

The index formed is

$$\frac{t_i + t_g}{t_w + t_i + t_{iw} + t_g + t_{gw} + t_s}$$

Teacher Dimension 1: Index Values by Percentages Within APPEP/NON-APPEP



The index has possible values from 0 to 1

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DOC, No

Date

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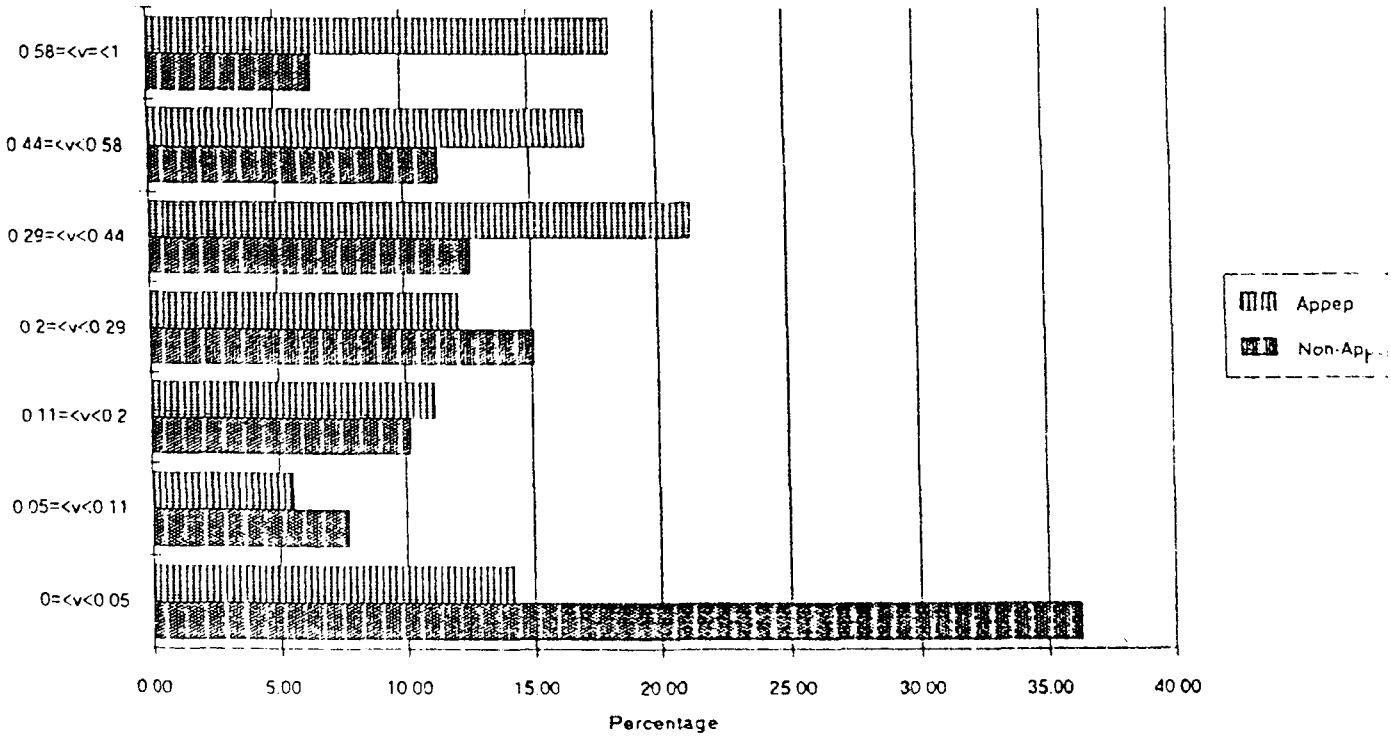
Dimension 2 :

Index on nature of teacher talk :

The index formed is as follows :

$$\frac{tqe + tqd + tp}{o + tr + tt + tqr + tqe + tqd + tp}$$

Teacher Dimension 2: Index Values by Percentages Within APPEP/NON-APPEP



The possible values of the index are from 0 to 1.

Dimension 3

Index on pedagogic activity :

The procedure adopted to form this index is as follows :

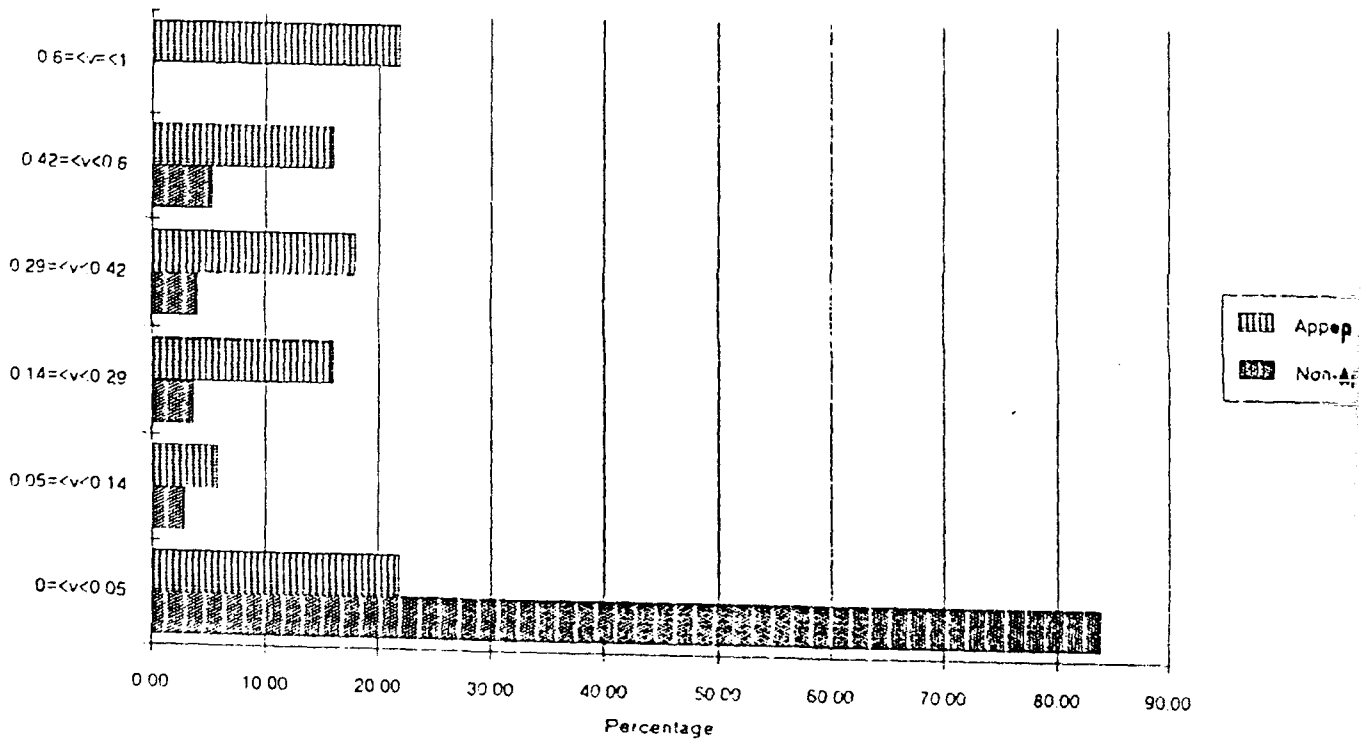
Any code that has been used at least once for this dimension is given a score of 1. These are then added to give an initial index. This gives a range of possible values from 1 to 11 to the index. The initial index has then been divided by 11 to give it a range comparable with the others. This index is estimated to be an initial attempt as a measure of pedagogic activity.

Pupil Behaviour :

Pupil Dimension 1 : The index formed under this dimension is:

$$\frac{pg + pp + pgi}{pc + pci + pg + pgi + pp + pgc + pi}$$

Pupil Dimension 1: Index Values by Percentages Within APPEP/NON-APPEP



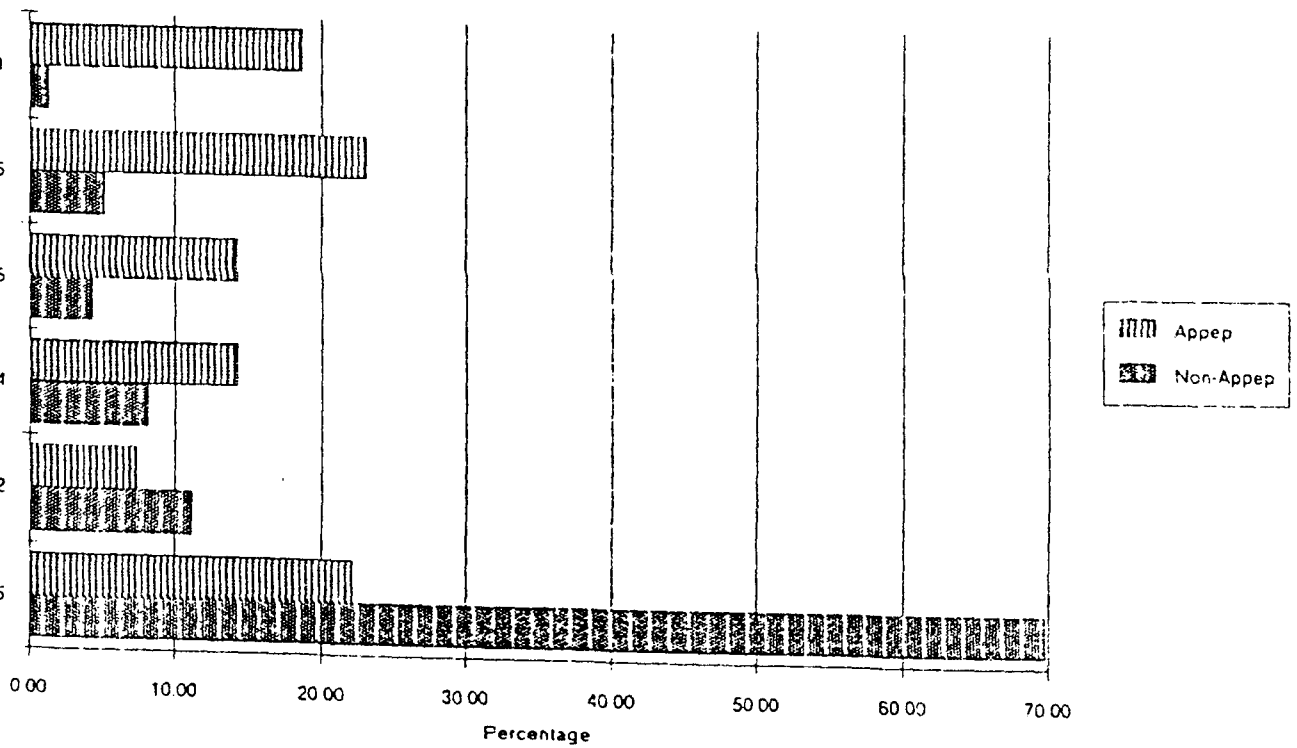
The value of the index it runs from a possible 0 to a possible 1.

Pupil Dimension 2 :

The index formed on this dimension (nature of pupil talk) is :

$$\frac{pqt + pqto + ptp + ptg}{ps + pat + pqt + pqto + ptp + ptg + ptc + pch}$$

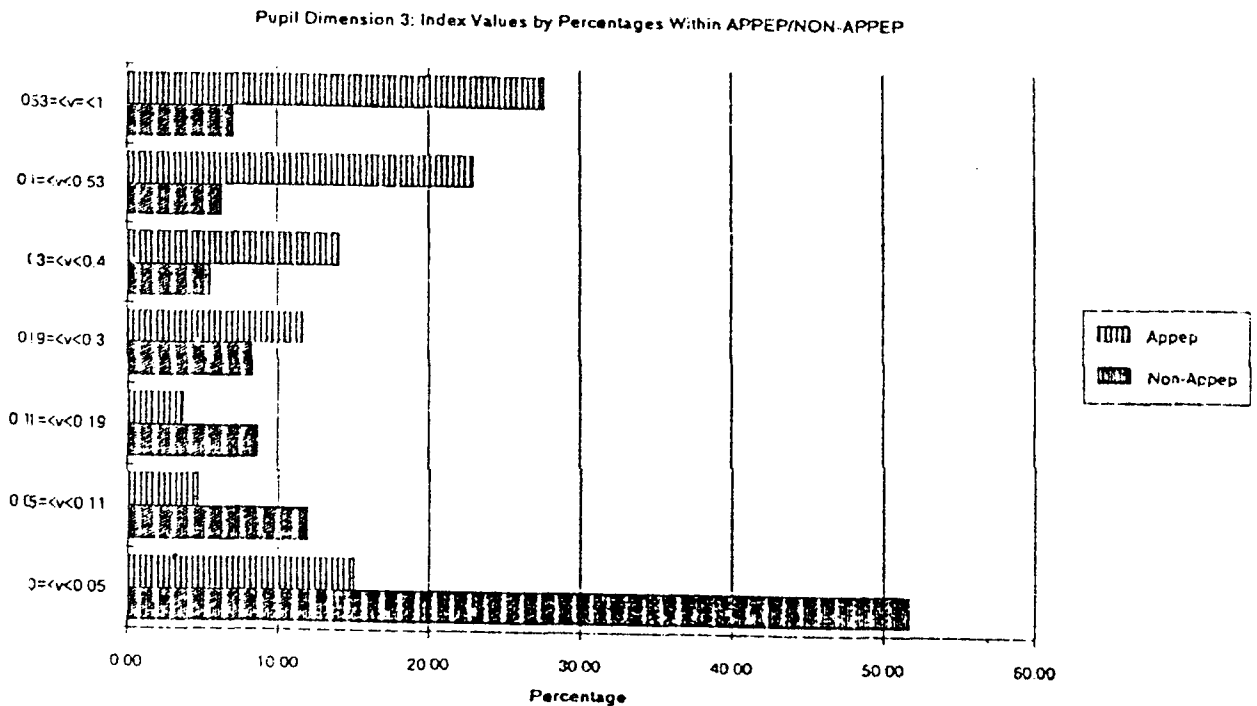
Pupil Dimension 2. Index Values by Percentages Within APPEP/NON-APPEP



The value of the index runs from a possible 0 to a possible 1.

Pupil Dimension 3 : This is formed thus, for each lesson observed:

$$\frac{\text{pwm} + \text{pri} + \text{pdp} + \text{pp} + \text{psp}}{\text{pcp} + \text{pwm} + \text{pri} + \text{pdp} + \text{pp} + \text{psr} + \text{pd} + \text{pl} + \text{pro} + \text{psp} + \text{prc} + \text{pco}}$$



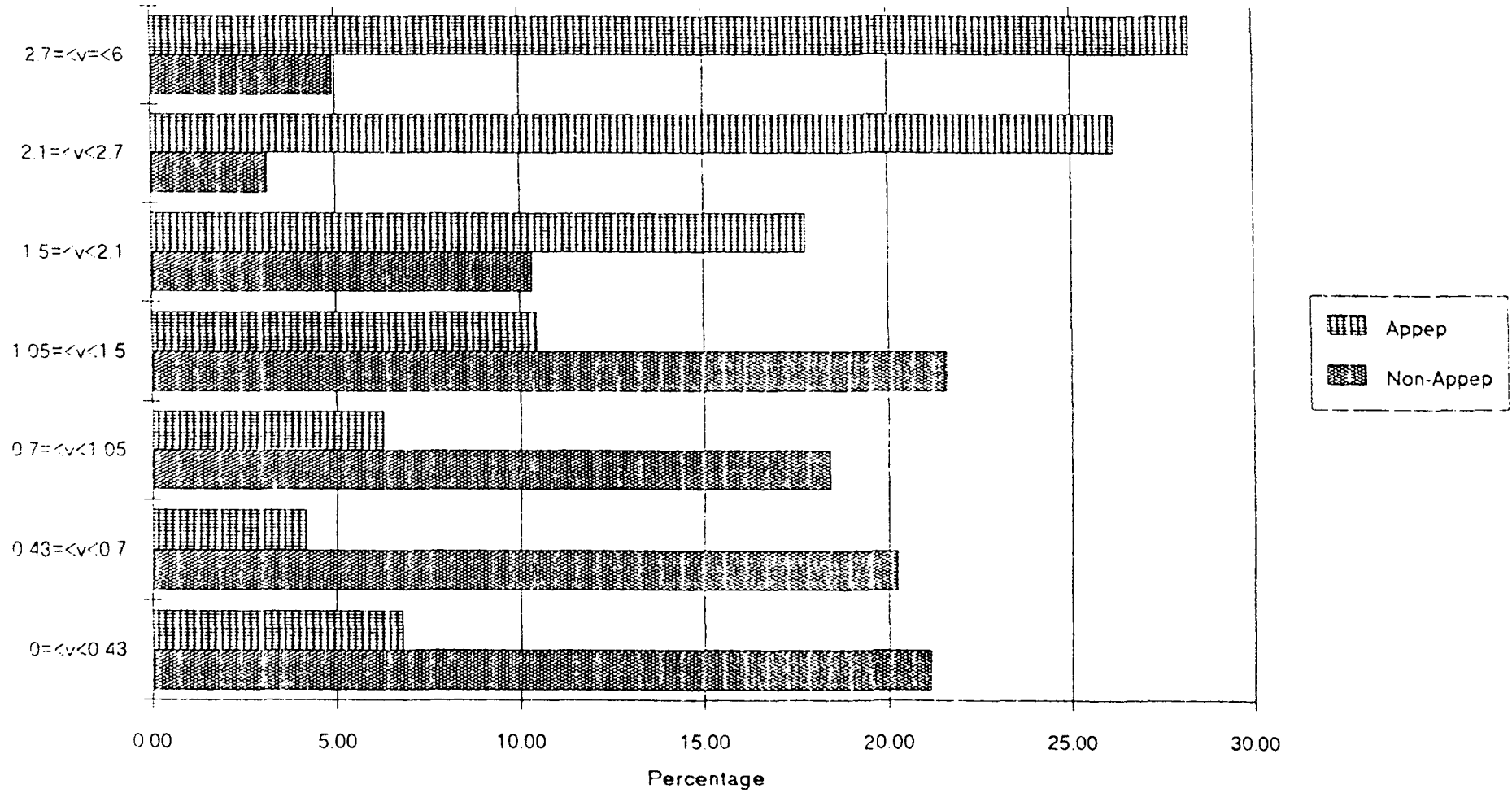
This is intended to give a proportional measure of APPEP-related behaviours for this dimension. Again it runs from a possible 0 to a possible 1.

The pattern from these graphs is clear. All these graphs indicate a definite trend towards the implementation of APPEP principles and approaches by the APPEP trained schools. Teacher dimension 3 is now most marked. It shows that APPEP trained teachers used a much greater variety of teaching methods in the classroom.

In the next graph the 6 indicators are combined into 1 index which ranges from 0 - 6. APPEPness is indicated by being close to 6.

Combined Observation Index : Index Values by Percentages within APPEP/NON APPEP

Combined Observation Index: Index Values by Percentages Within APPEP/NON-APPEP



3.4 Advanced analysis of classroom observation data :

The data presented in this part of section 3 has already been presented in the earlier sections. However, it is represented here with two objectives in mind. 1. To test the consistency between the two data sets; the interaction effects. 2. To answer some specific questions that have arisen within APPEP and among those who are interested in its progress.

In the first table the data on group activities and display of childrens' work (which has already been presented in visual form) is represented in a way that will allow the statistical significance of the difference between APPEP and non APPEP schools to be tested.

3.4.1 Mean performances of teachers on group activities and display of childrens' work

The mean performances of teachers in APPEP and non-APPEP schools in the conduct of group activities, display of childrens' work in different school subjects, and the significance of the difference in mean performances is as shown in table -24.

TABLE -24
MEAN PERFORMANCES OF TEACHERS ON GROUP ACTIVITIES AND DISPLAY OF CHILDREN'S WORK

Item	Subject	Mean Performances of		Significance of Difference (T-Test)
		APPEP	Non-APPEP	
Group activities	Language	1.95	0.78	S
	Maths	2.23	0.68	S
	E.S.I	1.74	0.48	S
	E.S.II	1.64	0.69	S
	Total :	7.56	2.65	S
Display of children's work	Language	1.39	0.34	S
	Maths	1.49	0.37	S
	E.S.I	1.13	0.26	S
	E.S.II	1.49	0.33	S
	Total :	5.51	1.31	S

Note : S: Significant.

The table shows quite clearly that the visual differences demonstrated earlier are robust and in all cases statistically significant.

3.4.2 Significance of participation Index and observation Index :

In the first part of this section the construction of two important indices has been described; the participation index and the observation index. The participation

index brings together all the teacher reported participation in Teachers' Centre activity from 'presenting demonstration lessons' to 'preparing period or unit plans'. The possible values are 0-13. The observation index brings together all the data from the observation schedule in a single index. The possible values are 0 - 6.

The table 25 below tests the statistical significance of the difference between APPEP and non-APPEP schools.

The means of participation and involvement index, observation index and indices on the dimensions of teacher and pupil behaviours in APPEP and non-APPEP schools are as given in table -25.

TABLE -25
MEANS OF P.I. INDEX, OBSERVATION INDEX AND DIMENSION OF TEACHER AND PUPIL BEHAVIOURS

Item	Mean Performances of		Significance of Difference (T-Test)
	APPEP	Non-APPEP	
1. Participation and involvement index (PI index)	7.10	4.77	S
2. Observation index (Ob index)	2.08	1.00	S
3. Teacher behaviour			
i) Type of teacher talk	0.24	0.12	S
ii) Nature of teacher talk	0.34	0.20	S
iii) Pedagogic activity	0.47	0.39	S
4. Pupil behaviour			
i) Organisation of pupils for learning	0.35	0.05	S
ii) Type of pupil talk	0.28	0.06	S
iii) Pupils' learning activities	0.38	0.13	S

Note : S : Significant.

Once again the robustness of these differences is demonstrated. All these items are significantly different.

3.4.3 Mean performances of teachers trained at DIET and Mandal levels:

It has been widely believed in the project that difference in the quality of the initial training course will give rise to subsequent differences in the amount of implementation of the innovation. In particular since DIET courses are held at the district headquarters and are longer (18 days as opposed to 10) it was thought that they would be associated with this difference in outcome.

The mean performances of teachers trained at DIET and Mandal levels on group activities, display of childrens' work, PI index, OB index and dimensions of teacher and pupil behaviours and the significance of difference in means are as given in table -26.

TABLE -26
MEAN PERFORMANCES OF TEACHERS TRAINED AT
DIET AND MANDAL LEVELS.

Item	Mean Performances of Teachers' trained at			Significance of Difference in Means(T-Test)
	DIET	Mandal		
1. Group activities	Language	2.26	1.92	N.S.
	Maths	2.69	2.03	N.S.
	E.S.I	1.69	2.42	N.S.
	E.S.II	1.66	1.96	N.S.
	Total :	8.30	8.33	N.S.
2. Display of children's work	Language	1.40	1.64	N.S.
	Maths	1.68	1.53	N.S.
	E.S.I	1.16	1.34	N.S.
	E.S.II	1.53	1.64	N.S.
	Total :	5.77	6.15	N.S.
3. PI index		7.34	7.44	N.S.
4. OB index		2.06	2.29	N.S.
5. Teacher behaviour				
i) Type of teacher talk		0.23	0.26	N.S.
ii) Nature of teacher talk		0.33	0.34	N.S.
iii) Pedagogic activity		0.46	0.50	N.S.
4. Pupil behaviour				
i) Organisation of pupils for learning		0.35	0.43	N.S.
ii) Type of pupil talk		0.30	0.29	N.S.
iii) Pupils' learning activities		0.38	0.44	N.S.

Note : Not significant

The data in table - 26 do not support this widely held belief. It may be true that DIET based courses are longer and better than mandal courses and it might be that the participants prefer them (not yet established) but despite this there is no evidence that they give rise to higher levels of implementation. This is an important finding because it means that we should look for other causes for the differences in uptake of the APPEP scheme.

3.4.4 Demonstration lessons by the MEOs and their impact :

We have already presented data on the frequency of MEOs visits to schools and found that there is no difference between APPEP and non APPEP schools. Here we will look at the effects of MEO activities within schools. Is there a correlation between these activities and uptake ?

The number of demonstration lessons given by the MEOs when they visited APPEP or non-APPEP schools in general and for the implementation of APPEP principles in particular were as given in table-27 (as reported by the teachers).

TABLE -27
PRESENTATION OF DEMONSTRATION LESSONS BY MEOs
IN SCHOOLS (AS RESPONDED BY TEACHERS)

No. of Demonstration lessons	Demonstration lessons in general		Demonstration lessons for the implementation of APPEP principles.
	APPEP	Non-APPEP	APPEP
None	57.42	71.29	62.00
Once	24.41	18.23	23.99
Twice	11.51	6.40	6.80
Thrice or more	5.13	3.30	5.27

The data in table - 27 indicate that about 40 % of teachers in APPEP schools reported that MEOs presented demonstration lessons more than "once" in general while about 28.00 % of teachers in non-APPEP schools reported the same. However it is note-worthy that about 36.00 % of teachers reported that MEOs presented demonstration lessons in relation to the implementation of APPEP principles more than "once". Though this support by MEOs is not adequate, a good beginning appears to have been made by the educational supervisors for the effective implementation of APPEP principles in schools.

Impact of demonstration lessons by MEOs on classroom instruction :

The number of demonstration lessons given by MEOs in APPEP schools had some positive impact on the number of times group activities were organised and children's work was displayed by the teachers in classrooms. This aspect is shown in the data given in table -28.

TABLE - 28
IMPACT OF DEMONSTRATION LESSONS BY MEOs

No. of demonstration lessons given by MEOs	Mean No. of times group activities were organised	Mean No. of times childrens' work was displayed in classrooms	Statistical significance of the means
Never	7.34	5.71	Significant
Once	7.91	6.37	Significant
Twice	10.48	7.18	Significant
Thrice or more	16.10	13.13	Significant

The data in table - 28 tell that the number of demonstration lessons given by MEOs is correlated with the number of times group activities were organised and childrens' work was displayed by teachers. It indicates the need for provision of more demonstration lessons by MEOs in classrooms for the effective implementation of project principles.

3.4.5 Impact of Guidance given by the MEOs :

MEOs guidance during visits to schools was felt as very good by 10.28 % of teachers and adequate by 73.89 % of teachers in APPEP schools.

The impact of MEOs' guidance during their visits to APPEP schools on the conduct of group activities and display of childrens' work is as shown in table-29.

TABLE - 29

IMPACT OF MEOs' GUIDANCE IN APPEP SCHOOLS

MEOs guidance as felt by teachers	Mean No.of times group activities were organised	Mean No.of times childrens' work was displayed	Statistical significance of the means
Not at all	5.71	4.50	Significant
Very less	8.81	5.56	Significant
Adequate	7.90	5.91	Significant
Very good	12.71	10.23	Significant

The data in table - 29 indicate that MEOs' guidance and teachers' initiative for the conduct of group activities and display of childrens' work are correlated that too, in a significant manner.

It must be remembered that a correlation is not equivalent to a causal relationship. The relationship could be brought about by MEOs visiting those schools that are most innovative and supportive of APPEP. Nevertheless, the correlation is there and relates to demonstration lessons and the quality of guidance.

This points to a possible policy option for increasing the adoption of APPEP methods in classrooms that could be tested. Increasing the number of visits and involvement (demonstration lessons) of MEOs might have a substantial impact that could be recorded. Since MEOs are senior colleagues who have undergone APPEP training, their ability to assist their colleagues is expected but it is demonstrated by this finding and could be confirmed by further action and research. However, in order to bring about increased involvement, MEOs posts will need to be kept upto strength and their multifarious duties simplified to some extent.

3.4.6 Impact of support by Head teacher and other colleagues on the APPEP implementation :

As reported earlier in this report 22 % of teachers in APPEP schools considered that they had "very good" support and 57 % of teachers considered that they had "adequate" support from the headteachers of schools in the implementation of APPEP principles. Similarly, 9 % of teachers had "a lot" of support and 78 % of teachers had "quite a lot" of support from their colleagues in schools.

The impact of the support by colleagues in schools on the conduct of group activities and display of childrens' work by classroom teachers is as given in table - 30.

TABLE -30

IMPACT OF SUPPORT BY COLLEAGUES ON APPEP IMPLEMENTATION

Nature of support	Mean No.of times group activities organised	Mean No.of times childrens' work was displayed	Statistical significance of the means
Not encouraging	6.73	3.51	
Encouraging	7.94	6.31	
Very encouraging	10.67	8.91	Significant

The data in table - 30 demonstrate that as the support from colleagues improves, the initiative of the teacher increases in taking measures for the implementation of APPEP principles in schools.

This is a second important finding and related to the MEO analysis above. Taking the last 3 results together they suggest that the uptake of APPEP is more related to what goes on in schools when the teachers return to their everyday duties than on the quality of the courses. The creation of encouraging atmosphere supported by colleagues and MEO visits should be the focus of policy and resources rather than simply concentrating on improving the quality of courses, although that remains important.

In the next section, we will have focus on the outcomes of implementation of the project.

SECTION 4 : THE OUTCOMES OF APPEP IMPLEMENTATION

4.1 The Order of outcomes :

The heuristic model presented in section 1 predicts a sequence of outcomes. The predicted sequence is based on an understanding of the educational process (theory) and on information obtained from field work (case study, visits and pilot survey). It is important to remember that it is presented as an aid to analysis and a help in interpreting the outcomes of the project. We must be prepared to study the outcomes as they occur and if necessary change the model and our understanding of what is happening in project schools.

This section adheres to the order of events set out in the model.

The APPEP has developed improved techniques for measuring the third order outcomes viz. enrolment, dropout, absenteeism etc. However, it remains the case that it will require overtime comparisons of individual schools before more sensitive data can be collected and analysis carried out. It is relevant to mention some of the complications in this process so that one is dissuaded from making premature judgements on these factors.

- i) Enrolment often takes place into all classes in a school (not just into class 1)
- ii) Some children are detained despite the policy of non-detention.
- iii) Enrolment figures in some schools are inflated with the names of children who have left , and , of those enrolled in two schools (a state school and a private school, which they will actually attend).
- iv) Absentees may well be given attendance.
- v) Children enroll and leave school throughout the year so that a drop-out from one school can become a newly enrolled pupil in another.
- vi) Local factors, harvest, drought, a new private school in or near the village and migrations can have substantial effect on absenteeism and dropout and not be related to APPEP.

Taking into account all the above aspects, an attempt has been made in this section to measure the outcomes of the project implementation which are detailed below.

4.2 First order outcomes : (Better pupil learning, motivation and enjoyment)

The District HRD lecturers interviewed 650 pupils studying in classes IV and V in the APPEP schools to find out their reactions to the implementation of APPEP principles in their schools. Among them 430 were boys and 220, girls. The composition of pupils communitywise and genderwise is as shown in table - 31. In this B.C, S.C, ST and OC stand for Backward classes, Scheduled classes, Scheduled Tribes and other communities respectively.

TABLE - 31
PUPILS INTERVIEWED COMMUNITYWISE AND GENDERWISE
No. Of Pupils Interviewed

Community	Class IV			Class V		
	B	G	T	B	G	T
BC	19	0	19	23	0	23
SC	56	0	56	71	0	71
ST	49	23	72	32	16	48
OC	88	96	184	92	85	177
TOTAL	212	119	331	218	101	319

The following were the reactions of the pupils on the various aspects relating to the implementation of APPEP principles in schools.

4.2.1 Pupils Working in group activities :

The percentage of pupils who worked in group activities in different subjects during the week that preceded the day of the District HRD lecturer's visit to school is as indicated in table-32

TABLE - 32
PERCENTAGE OF PUPILS WHO WORKED IN GROUPS

Subject	% Of Pupils Worked in Groups
Language	49.64
Maths	48.21
E S I	47.75
E S II	54.27

4.2.2 Roles played in group activities :

The roles played by the pupils in group activities are as indicated in table 33.

TABLE - 33
ROLES PLAYED BY PUPILS IN GROUP ACTIVITIES

Role	Percentage of Pupils
Group leader	32.35
Reporter	23.22
Display of materials	23.82
Collection of materials	41.94
Preparation of materials	47.27

4.2.3 Field trips :

28.47% of pupils informed that they had participated in field trips/visits during the academic year. Out of them, 15.17% presented reports on field trips in the classrooms. 26.42 % of the pupils who participated in field trips found them useful.

These tables present a pupil perspective on the implementation of APPEP in the classrooms. It should be noted that the frequencies reported by pupils are generally lower than those reported by teachers. However, they are much closer to the frequencies recorded by teachers after the exaggeration factor has been subtracted from the teacher data.

4.2.4 Pupil enjoyment / interest :

The data from pupil interviews demonstrate that a high level of pupil enjoyment was associated with the new activities as indicated in table - 34 .

TABLE - 34

NEW ACTIVITIES AND LEVEL OF PUPIL ENJOYMENT	
Level of pupil enjoyment	% of pupils reported
A lot	33
Quite a lot	60
Not much	3
Not at all	2
Non response	2

In order to test whether this high level of pupil enjoyment was associated with APPEP, a new indicator was created: "APPEPness". This indicator combined three factors namely participation and involvement of teachers in T.C. meetings, conduct of group activities and display of childrens' work.

In fact, pupil enjoyment was found to correlate positively and significantly with all the above major measures that constitute the implementation of APPEP. This is an important finding. It demonstrates that the more APPEP is implemented in schools, the more pupils enjoy attending the schools.

Further, multiple correlations between the variables viz., number of buildings in the schools, school area, economic status of parents, literacy status of parents, parent teacher ratios, crowding in schools, environment utilisation, APPEPness and Enjoyit were worked out and found them as follows.

- i) Enjoyit (pupil enjoyment) was found to be positively correlated with Environment utilisation (coefficient 0.20)
- ii) Enjoyit was positively correlated with APPEPness (coefficient 0.21)
- iii) Enjoyit was negatively correlated with PT Ratio (Coefficient - 0196)

The series of correlation is also a validity check on the 'enjoyit' variable. They show that pupils enjoyed school the more APPEP was put into practice, the more teachers there were and the better the school environment was.

The variable APPEPness was divided into five categories with values 1.00 (low) to 5.00 (high) to associate with a variable 'mean pupil enjoyment' of school. The distribution of the two variables is as shown in the table - 35.

TABLE - 35**APPEPness AND PUPIL ENJOYMENT OF SCHOOL**

Value of Index on APPEPness	Mean Pupil Enjoyment of schools
1.00	1.96
2.00	2.25
3.00	2.15
4.00	2.27
5.00	2.40

The data in table - 35 indicate an increasing trend in the pupil enjoyment of school as the value of index on APPEPness increases. As such, to have more pupil enjoyment (ie., interest to attend school to participate in activities), there is an immediate need to improve APPEPness in schools.

The significance of the means has been tested through analysis of variance (F-test) and found them as statistically significant at 5 % level of significance.

Visits to schools by parents as informed by the pupils :

The frequency of visits to schools by the parents, as reported by the pupils during the interviews is as shown in Table 36.

TABLE - 36**PARENTS VISITS TO SCHOOLS AS INFORMED BY PUPILS**

No. of Visits by Parents	Percentage of Pupils Informed
Not visited	14.57
Once	23.34
Twice	26.54
Thrice	13.74
Many times	19.19

4.3 Second order outcomes :

The second order outcomes of APPEP implementation viz., parent awareness and satisfaction, less absenteeism and broader pupil performance are discussed in this part of the section.

4.3.1 Parents awareness and satisfaction :

The parents awareness and satisfaction about the implementation of APPEP are measured through their involvement in school programmes as detailed below:

The District HRD lecturers who visited the schools for collection of data interviewed 480 male parents and 370 female parents in the APPEP schools. Among them 45.47% were illiterate, 29.41% studied upto fifth class and 15.56% were below Matric. Occupation wise 25.96% of them were farmers, 24.21% agricultural labourers, 13.22% other labourers and 36.61% with other occupations like businessman, barber, washerman etc.

Of the parents interviewed, 157 were SC parents (89 males and 68 females), 97 ST parents (52 males and 45 females), 370 BC parents (215 males and 155 females) and 226 OC parents(122 males and 104 females).

The following were some of the findings of the interviews held with the parents on the implementation of APPEP principles in schools.

- i) 76.97% of the parents visited the schools during the academic year 1991-92. Of them, 12.05% visited once, 17.08% twice, 15.56% thrice and 36.61% visited many times.
- ii) 47.02% of the parents indicated that they had noticed some change in the methods of teaching during their visits to schools.
- iii) 60.47% of the parents noticed change in the study behaviour of their children.
- iv) Children were found counting different objects at home by 66.08% of the parents.
- v) Materials like empty match boxes, match sticks, seeds, beads, bottle tops etc available in homes and nearby surroundings were found being collected by children as per the observations of 62.69% of parents.
- vi) 61.34% of the parents noticed that their children were talking about sketch pencils, colour paper charts, maps etc. with great interest.
- vii) 47.72% of the parents noticed that their children were talking about the materials they prepared, and displayed in classrooms by themselves or by their classmates.
- viii) Most of the parents interviewed (93.45%) expressed their desire to visit schools quite often to see their children participating actively in the new learning activities.

The data relating to parents involvement and interest show an intrinsically high level of awareness and concern. However, this data has not yet been collected within a comparative framework nor has it been treated for inflation due to exaggeration. It will, however, act as important baseline data against which M.S. 2 parental data can be compared.

4.3.2 Continuous absenteeism of children in schools :

During the survey the headteachers were asked to record the number of children who had been continuously absent for one month, during the months of March 1991 and October 1991. The cases were recorded on a proforma broken down by class (I-V), community and sex. The data were collected both in APPEP schools and non-APPEP schools. The results in terms of percentages, are as given in Table 37. The percentages correspond to the total no. of children in the communities enrolled during the years 1990-91 and 1991-92 in the respective classes.

TABLE - 37

ABSENTEEISM OF CHILDREN {COMMUNITYWISE} IN SCHOOLS

School	Community of Children	March'91			Oct'91		
		B	G	T	B	G	T
APPEP	OC	14.71	14.26	14.48	11.96	13.22	12.59
	BC	12.65	14.11	13.28	10.36	11.60	10.92
	SC	22.40	17.32	20.35	11.24	14.27	12.45
	ST	11.65	19.40	14.52	20.13	19.58	19.92
	Total :	15.02	14.92	14.97	11.68	13.02	12.28
Non-APPEP	OC	15.47	15.70	15.59	14.97	13.82	14.37
	BC	15.53	16.59	16.00	14.14	18.82	16.22
	SC	18.63	20.97	19.54	12.58	17.93	14.57
	ST	11.47	17.35	13.83	15.00	16.43	15.60
	Total :	15.77	16.99	16.33	14.08	16.90	15.35

The data in table - 37 reveal that, in general, continuous absenteeism of children decreased by 2.69 % in APPEP schools and by 0.98 % in non-APPEP schools from March'91 to October'91. The communitywise position of absenteeism in APPEP and Non-APPEP schools was as follows :

Position in APPEP schools :

When considered communitywise, the continuous absenteeism of children of S.Cs decreased considerably (i.e.by 7.90 %) when compared with that of B.C. children (2.36 %) or O.C. children (1.89 %) during the period. The decrease in absenteeism was highest among SC boys (11.16 %) and S.C. girls (3.05 %). However, the continuous absenteeism of S.T. children increased by 5.40 % during the same period.

Position in non-APPEP schools :

The continuous absenteeism of children decreased by 4.97 % among S.C. children and 1.22 % among O.C. children. The decrease was highest among S.C. boys (6.05 %) and S.C. girls (3.04 %). However, it increased by 0.22 % among B.C. children and 1.77 % among S.T. children.

This pattern is difficult to interpret. One common feature between APPEP and non-APPEP schools is the larger decrease in absenteeism in the case of scheduled caste boys and girls. However, it would appear that external factors are more influential in producing these changes than the fact that the child was in an APPEP or non-APPEP school.

Continuous absence of children and PI-GA-CW Index :

The cross-tabulation of the variables viz., continuous absence of children and PI-GA-CW Index (a combined index of participation and involvement in

T.C.meetings,Group Activities and display of childrens' work) was made to find out the impact of the PI-GA-CW Index on continuous absence of children. The value of PI-GA-CW Index was indicated in five categories, ranging from 1.00 (low) to 5.00 (high) and the mean continuous absence of children (boys and girls separately) during March',91 and October',91 was taken for crosstabulation as shown in table-38

TABLE - 38

CONTINUOUS ABSENCE OF CHILDREN AND PI-GA-CW INDEX :

School	Value of PI-GA-CW Index	Mean Continuous absence of children during			
		March',91 (Total boys)	March',91 (Total girls)	Oct',91 (Total boys)	Oct',91 (Total girls)
APPEP	1.00	12.82	10.27	15.60	9.20
	2.00	6.32	4.95	7.80	6.55
	3.00	13.82	10.63	11.36	9.97
	4.00	14.56	13.18	12.17	10.42
	5.00	19.42	17.37	15.16	15.77
	Total	15.46	13.43	12.88	11.93
Non-APPEP	1.00	15.64	16.18	12.80	14.89
	2.00	17.30	16.27	16.78	14.75
	3.00	23.55	17.22	18.94	14.28
	4.00	22.53	21.69	22.33	19.47
	5.00	16.67	18.69	17.59	15.71
	Total	18.92	17.36	17.07	15.42

The data in table - 38 indicate that the mean continuous absence of children was lower in APPEP school than in Non-APPEP schools both during March',91 and October',91. However, it must be remembered that many of the APPEP schools were not trained until after March 1991, the month to which the first column refers. Nearly all of the schools will have been trained by October 1991, the period to which the second column refers. It follows that some of the reduction in the absenteeism in the APPEP schools could be due to the APPEP scheme. If this is true, then the schools registering the largest reduction should be those with a PI-GA-CW index above 3. This will not be the case in the non-APPEP schools where high scores in this index are deemed to be due to exaggeration. The table presented below tests this hypothesis.

TABLE - 39**PI-GA-CW index and reduction in mean number of children****who were continuously absent between March and October 1991.**

Value of Pi-GA-CW Index	APPEP		Non-APPEP	
	Boys	Girls	Boys	Girls
1.	- 2.78	1.07	2.84	1.29
2.	- 1.05	- 1.60	0.52	1.52
3.	2.46	0.66	4.63	2.94
4.	2.39	2.76	0.20	2.20
5.	4.26	1.60	- 0.90	2.98

The hypothesis is strongly borne out by the APPEP boys column and weakly born out by the APPEP girls column. Neither of the non APPEP columns shows any support for the hypothesis.

Continuous absence of children and OB Index :

The mean continuous absence of children was crosstabulated with the OB Index (observation Index) whose values were categorised as 1.00 (low) and 2.00 (high). The cross tabulation is as shown in table - 40

TABLE - 40**CONTINUOUS ABSENCE OF CHILDREN AND O.B. INDEX :**

School	Value of OB Index	Mean Continuous absence of children during			
		March,'91 (Total boys)	March,'91 (Total girls)	Oct,'91 (Total boys)	Oct,'91 (Total girls)
APPEP	1.00	14.16	13.53	11.82	13.58
	2.00	15.98	13.07	13.31	10.72
	Total	15.28	13.24	12.88	11.93
Non-APPEP	1.00	19.39	17.98	17.49	15.89
	2.00	15.25	12.94	13.89	12.05
	Total	18.76	17.23	16.93	15.29

The data in table - 40 indicate that in APPEP schools, as the value of OB index varied from 1.00 to 2.00, the mean continuous absence of total boys decreased by 2.67, from March '91 to October '91. In the case of total girls, the decrease in mean continuous absence was 2.35 during the same period. In general, the decrease in mean continuous absence was 2.40 among total boys and 1.31 among total girls due to OB index.

Once again it is possible to calculate the decrease in the continuously absent totals for the high and low OB index, as shown in table - 41.

TABLE - 41
O.B.INDEX AND REDUCTION IN MEAN NUMBER OF CHILDREN
WHO WERE CONTINUOUSLY ABSENT BETWEEN
MARCH 1991 AND OCTOBER 1991.

Value of OB Index	A P P E P		Non-A P P E P	
	Boys	Girls	Boys	Girls
1	2.34	- 0.5	1.90	2.09
2	2.67	2.35	1.36	0.93

In this case the APPEP girls column shows a strong increase between OB index 1 and 2 and the APPEP boys, a weak trend. The non APPEP columns both show counter trends.

It would appear that both of the above tables provide us with evidence that the APPEP scheme has affected the measure of absenteeism.

So, we can conclude that the mean continuous absence of children decreased more in APPEP schools than in Non-APPEP from March',91 to October',91 due to the effects of the APPEP scheme as measured by the PI-GA-CW index and OB index. It indicates that the more a school has implemented APPEP, the more the continuous absenteeism of children is reduced.

4.3.3 Absenteeism of children on the day of visit of District HRD Lecturers :

The district HRD Lecturers who visited schools for collection of data recorded the absenteeism of children in classes I to V on the day of their visit to schools by taking the number of children marked present in the attendance register and the number of children actually present in the classroom during the count. The difference in number of children between marked present and actually present (in terms of percentage) in each class is as given in Table 42.

TABLE - 42
ABSENTEEISM OF CHILDREN AS RECORDED BY DISTRICT HRD LECTURERS

School	Class	Difference in No. of children between marked present & actually present (in %)		
		Boys	Girls	Total
APPEP	I	6.25	5.45	5.90
	II	7.48	4.75	6.29
	III	4.79	- 0.80	2.32
	IV	4.56	-21.12	-6.29
	V	3.86	4.40	4.08
	Total :		5.54	- 0.39
Non-APPEP	I	23.80	9.52	17.86
	II	8.38	20.44	14.47
	III	7.53	8.95	8.18
	IV	9.66	6.23	8.16
	V	5.77	6.22	6.19
	Total		7.45	10.98

The data in table - 42 show that, in general, the absenteeism of children after recording the attendance was about 3.0 % in APPEP schools while it was three times more in non-APPEP schools. In each class, the percentage of children absent was lower in APPEP schools than in non-APPEP schools. This could be an indication that children are less likely to go absent during the day (after registration) in APPEP schools than in non-APPEP schools. In classes III and IV of APPEP schools, the percentage of girls actually present was more than the attendance recorded. This was most probably because of the presence of girls in the schools along with their younger sisters who they had to look after during the absence of their parents at home.

4.3.4: Broader pupil performance :

Broader pupil performance :

Assessment instruments are now being developed by the project to measure this outcome based on APPEP principles and approaches. For this purpose, test items are being developed in the four school subjects for class 5 both at the project headquarters and at the DIETs (by the District HRD lecturers). Initially, the instrument was trialled for children of class 5 in 52 selected schools in the state during March, '93. Based on the results, the instruments will be gradually developed for the other lower primary classes to measure the pupil performance.

4.4 Third Order outcomes (Enrolment, dropout and pupil performance)

4.4.1 Enrolment of children in classes I-V :

The enrolment of children in classes I-V during the years 1990- 91 and 1991-92 (as on 30th Sept) in the APPEP (trained) schools and APPEP (not trained) schools is as given in Table 43.

TABLE - 43
ENROLMENT OF CHILDREN IN CLASSES I-V DURING 1990-91 AND
1991-92 (as on 30th September)

School	Enrolment of Children in Classes I-V					
	1990-91			1991-92		
	B	G	T	B	G	T
APPEP (trained)	22866	18390	41256	22380	18146	40526
%	55.42	44.58	100.00	55.22	44.78	100.00
APPEP (not trained)	29674	24751	54425	29790	24596	54386
%	54.52	45.40	100.00	54.77	45.23	100.00

The data in Table 43 indicate that the size of enrolment of children in classes I-V and proportion of boys and girls in the two kinds of schools were more or less the same during the years 1990-91 and 1991-92.

As expected the enrolment figures show no signs of being affected by APPEP. In many of the APPEP schools the teachers were trained after the major period of enrolment was completed.

Proportion of BC, SC and ST enrolment to the total enrolment :

The proportion of enrolment of children belonging to BC, SC and ST communities to the total enrolment in classes I-V during the years 1990-91 and 1991-92 are as given in Table 44.

TABLE - 44
ENROLMENT OF CHILDREN BELONGING TO B.C., S.C. AND S.T.
COMMUNITIES DURING 1990 - 91 AND 1991 - 92
Percentage of children enrolled

School Year		B.C.			S.C.			S.T.		
		B	G	T	B	G	T	B	G	T
APPEP	1990-91	27.12	20.90	48.02	10.87	7.35	18.22	3.47	2.04	5.51
	1991-92	26.11	21.35	47.46	11.89	7.85	19.74	4.27	2.75	7.02
Non - APPEP	1990-91	26.24	21.17	47.41	10.30	6.59	16.89	4.45	3.00	7.45
	1991-92	25.79	20.72	46.51	11.50	6.84	18.34	3.99	2.92	6.91

Note:- B : Boys G : Girls T : Total

The proportions of enrolment of children belonging to BC, SC and ST communities to total enrolment in classes I-V did not vary significantly in APPEP schools and non-APPEP schools during the years 1990-91 and 1991-92. The percentages are in conformity with the proportion of SC % and ST % population to the total population of the state in general as per the 1991 census.

4.4.2 Dropout of children :

The number of drop-out children in classes 1 - 4 were worked out in APPEP and non-APPEP schools by taking the total enrolment of children in classes 1 - 5 during September, '90 and September, '91. For example, the number of drop-out boys in class 1 was worked out by taking the difference between the enrolment of boys in class 1 during Sept, '90 and enrolment of boys in class 2 during September, '91 i.e,

The No. of drop-out boys in class 1 = Number of boys in class 1 in Sept, '90 - Number of boys in class 2 in Sept, '91.

The mean drop-out of children in classes 1 - 4 in APPEP and non- APPEP schools during 1990 - 91 and the statistical significance of their differences are as given in table - 45.

TABLE - 45
MEAN DROP-OUT OF CHILDREN IN CLASSES 1 - 4.

Class	Mean drop-out of		Significance of difference in means		
	Boys	Girls	Boys	Girls	
	APPEP	Non-APPEP	APPEP	Non-APPEP	
1	10.71	6.94	7.24	6.36	S
2	2.66	2.88	2.70	2.71	N.S.
3	1.76	1.77	2.64	3.79	N.S.
4	0.92	0.88	0.73	1.97	N.S.

Note:- S: Significant N.S: Not Significant

To make a meaningful comparison between APPEP and non-APPEP schools it is necessary to take into account the size of each cohort and convert the mean difference into a proportional figure.

To make this difference as a proportional measure and have the drop-out rate, this difference is divided by the no. of boys in class 1 in Sept,'90 (i.e. enrolment) and multiplied by 100.

$$\text{Dropout rate of boys in class 1} = \frac{\text{No. of boys in class 1 in Sept,'90} - \text{No. of boys in class 2 in Sept,'91}}{\text{No. of boys in class 1 in Sept,'90}} \times 100$$

The drop-out rates were worked out similarly for other classes in respect of boys and girls.

The mean drop-out rates in classes 1 to 4 in APPEP and non-APPEP schools and the significance of the differences in drop-out rates are as indicated in table - 46.

TABLE - 46
DROP-OUT RATES IN CLASSES 1 - 4 IN APPEP AND NON-APPEP SCHOOLS

Class	Gender	Mean drop-out rates in		Significance of the difference between mean drop-out rates
		APPEP Schools	Non-APPEP Schools	
1	B	23.73	14.94	N.S.
	G	20.50	16.58	N.S.
2	B	3.67	6.00	N.S.
	G	11.32	5.71	N.S.
3	B	2.69	5.35	N.S.
	G	1.58	10.48	N.S.
4	B	5.22	13.44	N.S.
	G	1.13	-11.45	N.S.

The data in table -46 indicate that there are no significant differences in the mean drop out rates of children in classes 1 to 4 in APPEP and non-APPEP schools during 1990-91.

This finding confirms the expectations built into the model described earlier. Drop out is clearly a 3rd order outcome.

4.4.3 Pupil performance :

The scores of a sample of pupils in the routine class 3 and class 5 annual examinations were collected (Schedule 3). These scores derive from teacher written and conducted classroom tests and so are not strictly comparable across schools, but nevertheless give an indication of current levels of performance in the system. It is important to monitor these scores in case APPEP has any impact on them. We would not expect any impact on long-term outcomes (see model in section 1).

Mean scores by sex and subject for 1989-90 and 1990-91, for Class 3 and Class 5 are as given in Tables 47 and 48.

TABLE -47
MEAN SCORES FOR CLASS - III
APPEP / NON-APPEP SCHOOLS

SUBJECT	YEAR	BOYS/GIRLS	MEAN SCORES IN APPEP SCHOOLS	MEAN SCORES IN NON-APPEP SCHOOLS
TELUGU	89-90	Boys	44.16	43.65
		Girls	43.40	44.00
	90-91	Boys	44.26	42.88
		Girls	43.76	42.98
MATHS	89-90	Boys	43.50	43.46
		Girls	42.79	43.19
	90-91	Boys	44.12	43.48
		Girls	42.83	42.51
E.S.I	89-90	Boys	42.71	42.32
		Girls	41.33	41.56
	90-91	Boys	42.73	41.82
		Girls	42.11	41.99
E.S.II	89-90	Boys	43.33	42.66
		Girls	41.17	42.55
	90-91	Boys	42.92	42.59
		Girls	41.80	42.28

TABLE - 48
MEAN SCORES FOR CLASS - V
APPEP / NON-APPEP SCHOOLS

SUBJECT	YEAR	BOYS/GIRLS	MEAN SCORES IN APPEP SCHOOLS	MEAN SCORES IN NON-APPEP SCHOOLS
TELUGU	89-90	Boys	47.50	48.82
		Girls	48.04	49.17
	90-91	Boys	47.81	47.04
		Girls	47.69	47.18
MATHS	89-90	Boys	46.82	46.84
		Girls	45.50	46.08
	90-91	Boys	46.95	45.89
		Girls	45.81	44.37
E.S.I	89-90	Boys	47.07	47.72
		Girls	46.00	47.70
	90-91	Boys	47.62	46.94
		Girls	46.80	46.38
E.S.II	89-90	Boys	48.05	48.78
		Girls	48.36	49.22
	90-91	Boys	47.66	47.54
		Girls	47.26	47.54

The data in tables 47 and 48 demonstrate the pattern of performance currently observable in A.P. Primary schools and indicate that the innovation has not had an impact on examination scores to date. This is to be expected at such an early stage of the innovation. As noted in the introduction, achievement levels are a "third order" outcome (See model). More positively it can be stated that scores in APPEP schools have not declined and therefore that the training programme does not seem to have been too disruptive.

Some exploratory regression analyses were also carried out on the examination data and these confirmed that any variation in scores was not due to an APPEP effect. What ever variations there were in the data (and they were very small) were associated with parental literacy, location of the school and the presence of particular resources in the school (a "kits" index was constructed from responses to schedule (1)

Broader pupil performance :

Assessment instruments are now being developed by the project to measure this outcome based on APPEP principles and approaches. For this purpose, test items are being developed in the four school subjects for class 5 both at the project headquarters and at the DIETs (by the District HRD lecturers). Initially, the instrument will be trialled for children of class 5 in 52 selected schools in the state during March',93. Based on the results, the instruments will be gradually developed for the other lower primary classes to measure the pupil performance.

SECTION 5 : FINDINGS, CONCLUSIONS AND RECOMMENDATION

5.1 Summary of findings of the survey :

The broad pattern of implementation and outcomes of the APPEP scheme emerges quite clearly from the evaluation main survey 1. The results of the survey were organised using an innovation implementation/output model and the effects demonstrated using comparisons between two samples that had been carefully constructed of similar schools.

Based on the analyses of data on the implementation of the project principles in schools, and the outcomes of implementation, the findings of the survey are summed up in the following :

- 1) The APPEP initial inservice training has been found to be 'very useful' for the effective implementation of APPEP principles by about 40 % of APPEP trained teachers that participated in the survey. In the pilot survey, this was 63 %. So, the percentage of APPEP trained teachers who found APPEP training as 'very useful' has declined by 23 % between pilot survey and Main Survey I.
- 2) 3-day follow-up courses have been found to be 'a lot' helpful for the implementation of APPEP principles by about 21.0 % of APPEP trained teachers. This was 56 % at the time of pilot survey. There has been a steep fall of 35 % on this aspect between the two surveys.
- 3) About one fifth of the APPEP trained teachers (19.3 %) felt the APPEP initial inservice training to be 'very useful', and 3-day follow-up course 'a lot' helpful for the implementation of APPEP principles when their combined opinions on the two types of training are taken into account. Similarly, about fifty percent of APPEP trained teachers (49.4 %) have felt the initial inservice training to be 'of some use' and 3-day followup course 'quite a lot helpful'. These percentages are found to be statistically significant at 5 % level of significance.
- 4) It has been reported by APPEP trained teachers that about 57 % of them are presenting demonstration lessons, 63 % teachers are displaying pupils' work and over 80.0 % of them are preparing teaching and learning aids in the TC meetings. These percentages are in agreement with the percentages of teachers reported on the above aspects in the pilot survey.

It is also found that the professional involvement of APPEP trained teachers is at medium and high levels in TC meetings when compared to the low and medium levels of participation of teachers of non-APPEP schools.

- 5) As many as 86 % of APPEP trained teachers reported that they are able to put to use teachers' hand book provided during the period of APPEP initial inservice training for the effective implementation of APPEP principles.
- 6) Nearly 80 % of APPEP trained teachers reported that they are able to use materials provided for organising activities properly and effectively.
- 7) During the year that preceded the survey, 26 % of APPEP schools as against 21 % of Non-APPEP schools were visited 'twice' by MEOs. This might be considered

an improvement in MEOs' support to APPEP schools. However when the number of visits viz. 'none', 'once' and 'thrice or more' were considered the number of visits by MEOs to both APPEP and Non-APPEP schools remained by and large the same.

- 8) The extent of full support by headteachers and colleagues in APPEP schools has to grow more (headteachers : 22 % and colleagues : 9 %) for APPEP implementation.
- 9) Most of the APPEP trained teachers believe that traditional methods should take up at least 25 % of classroom time.
- 10) It is estimated that 38 % of APPEP trained teachers are carrying out group work and 41 % of teachers are displaying children's work during classroom instruction (as reliable estimates after taking into consideration the exaggeration factor).
- 11) There is no significant difference in the mean performances of teachers trained at DIET and Mandal levels in carrying out group work and display of children's work.
- 12) The observation indices on teacher behaviour and pupil behaviour reveal that a much greater variety of teaching methods are used in APPEP schools when compared to the traditional methods of non-APPEP schools.
- 13) It is found statistically significant that as the quality of MEO's guidance and the number of demonstration lessons presented by MEOs based on APPEP principles increase in schools, the mean performances of teachers in the organisation of group activities and display of children's work also increase.
- 14) It is found statistically significant that as the support from colleagues improves, the initiative of the teacher increases in taking measures for the implementation of APPEP principles in schools (like groupwork and display of children's work).
- 15) As the value of index on APPEPness (a combined index of participation and involvement in T.C. meetings, conduct of group activities and display of children's work by APPEP trained teachers) increases, the pupil enjoyment of school also increases.
- 16) Parents' interviews reveal that about three-fourths of the parents interviewed visited the schools during 1991-92 once or more than once. 47 % of the parents indicated that they noticed some change in the methods of teaching during their visits to schools. 60 % of parents noticed change in the study behaviour of their children.
- 17) Mean continuous absence of children decreased more in APPEP schools than in non-APPEP schools from March '91 to October '91 due to the effects of the APPEP scheme.
- 18) The size of enrolment of children in classes I-V found to be more or less the same in APPEP and Non-APPEP schools during 1990-91 and 1991-92.
- 19) There were no significant differences in the mean drop-out rates of children in class I to IV in APPEP and Non-APPEP schools during 1990-91.

- 20) The mean achievement scores of children in classes III and V in APPEP and Non-APPEP schools do not vary significantly for the years 1989-90 and 1990-91. The regression analysis of the scores indicates that any variations found were associated with parental literacy, location of schools and resources in the school (kits index etc).

5.2 Conclusions :

The results of the study of the implementation by the system show that teachers are still reasonably happy with the quality of the initial and followup courses. However the fall in the proportion of teachers who found them very useful or helpful (between the pilot and main survey) is slightly worrying and if this proved to be a long term trend it could harm the project.

APPEP teachers see themselves as implementing the project in classrooms and being more active and involved than non-APPEP teachers at T.C. meetings. These results are statistically significant and even when corrected for exaggeration show 30 % - 40 % level of implementation of some basic teaching techniques which is very high for a project of this size and scope. This level of implementation is borne out by independent witness, in particular HRD lecturers who observed classroom and reports by pupils who were taught by APPEP trained teachers. There can be little doubt that the evaluation has firmly established the early level of implementation on which the project must now begin to build.

Despite great concern among project personnel that differences in the quality between Mandal and DIET level courses could harm the implementation of the project, there is no evidence of this from the evaluation. In fact DIET or Mandal trained teachers are almost identical in the levels of implementation, (studied so far). On the other hand there are strong indications that involvement and good quality advice by MEOs do enhance levels of classroom implementation, as does a collaborate and supportive set of colleagues. MEOs do not visit APPEP trained schools more frequently than non-APPEP schools. It would seem that a change of policy here could bear fruit but MEOs would need to be freed of some of their multifarious duties, if this were to become a practical possibility.

The outcome measures were arranged in 3 orders. The pupils are clearly the first to be affected by implementation and the pupil interviewees show an intrinsically high level of enjoyment of the new work. What is more compelling is that this indicator correlates significantly with a variable measuring the extent to which APPEP principles have been implemented in the school. This is a clear vindication of the widely held subjective belief in the project team that pupils enjoy the 'new' methods. It is also a vindication of part of the theoretical model on which APPEP is based. Pupils also report participating in a wide variety of educational experiences and this is borne out by the responses of the parents who report noticing them undertaking tasks at home. This is all indication that some second order outcomes are beginning to be achieved.

The decline in the mean number of children who were continuously absent in March, 1991 compared with October, 1991 is also an indication of deeper structural effects. The rate of decline seemed to be greater in schools which were high

on APPEP implementation indicating that APPEP was affecting (favourably) the amount of decline in absenteeism. If this were to become a firm trend then we can expect APPEP to begin to affect dropouts in the future.

The third order outcomes proved to be (as expected) outside the realms of APPEP outcomes. It will require several years of building on the results so far before we can expect substantial improvements in enrolment, although dropout and achievement might show some signs of being affected in the less distant future.

As such, the following conclusions may be drawn on the basis of the findings of the survey.

- 1) The APPEP initial inservice training and 3-day followup courses that are conducted for primary schools teachers are not found 'very useful' by majority of teachers for the implementation of APPEP.
- 2) MEOs are hardly paying any special attention in visiting the APPEP schools.
- 3) The participation and involvement of teachers in T.C. meetings in carrying out academic activities is quite encouraging.
- 4) About one-third of APPEP trained teachers are carrying out group work and display of childrens work during classrooms instruction.
- 5) There is no significant difference in the impact of APPEP initial inservice training provided at DIET and Mandal levels on the performance of teachers in classroom instruction.
- 6) The implementation of APPEP in schools could gain momentum with the increased support of MEOs, headteachers and colleagues.
- 7) The implementation of APPEP is contributing to the increased pupil participation and enjoyment of the school programmes.
- 8) The reduction in mean continuous absence of children in APPEP schools could raise the hopes of project implementers in achieving more enrolment ratios, less dropout rates, and higher scholastic achievement levels in less distant future.
- 9) Parental awereness to the changing trends in pedagogy and study patterns of their children is growing.

5.3 Recommendations :

The following are the recommendations of the evaluation study (MS I) to improve the scope and process of implementation of the project.

1. An indepth study may be undertaken on the course content, methods of training, quality of resource persons, attitudes of teachers etc. to asses the effectiveness of APPEP initial inservice training (conducted at DIET and Mandal levels) and 3-day followup courses to increase the extent of their utility.
2. The work load of Mandal Education Officers is to be minimised to enable them to provide better academic guidance and support to primary school teachers for APPEP implementation.

3. MEOs should be enabled to pay more attention to undertaking visits to APPEP schools by providing adequate means of transport, special instructions etc. until the total coverage of schools by the project and full implementation, is achieved.
4. The functioning of Teachers' Centres is to be strengthened through academic guidance and support by project headquarters staff, DIET level HRD lecturers and MEOs to motivate teachers for effective implementation of APPEP principles in classrooms and for an increased level of participation of teachers in the process.
5. The degree of utility of materials provided to primary schools and Teachers' Centres (Consumable and non-consumable) is to be measured through periodical visits by project headquarters staff and DIET level HRD lecturers. Necessary guidance is to be provided to teachers through demonstrations, publication of pamphlets, brochures etc to improve their skills in the use of materials provided.
6. School-community relations are to be kept at enlarged level to increase the participation and involvement of parents in school programmes and enable parents to know the educational progress of their children periodically.

ANNEXURE I
ANDHRA PRADESH PRIMARY EDUCATION PROJECT
DISTRICT WISE NUMBER OF SCHOOLS SELECTED FOR
MAIN SURVEY-I (YEAR: 1990-91)

District	Group-I				Group-II				Group-III				Group-IV			
	U	SU	R	T	U	SU	R	T	U	SU	R	T	U	SU	R	T
1. Srikakulam	-	-	3	-	-	-	2	-	-	1	2	-	-	1	3	-
2. Vizianagaram	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. Visakhapatnam	-	3	-	-	-	3	-	1	1	1	1	1	-	1	-	-
4. East Godavari	-	-	-	-	-	-	-	2	1	3	-	2	-	4	-	-
5. West Godavari	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. Krishna	-	-	1	-	-	-	-	2	2	1	-	2	-	4	-	-
7. Guntur	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. Prakasam	-	1	2	-	-	2	2	-	-	1	1	-	-	1	1	1
9. Nellore	1	2	2	-	-	1	1	-	-	1	1	-	-	1	2	-
10. Chittoor	-	-	2	-	-	1	3	-	-	-	2	1	1	1	1	1
11. Cuddapah	-	-	-	-	-	-	-	2	2	2	-	1	1	3	1	-
12. Anantapur	-	-	-	-	-	1	-	-	3	1	-	-	2	4	1	-
13. Kurnool	-	-	-	-	-	-	-	2	2	2	-	2	-	3	1	-
14. Hyderabad	3	-	-	-	3	-	-	2	-	-	-	4	-	-	-	-
15. Rangareddy	-	-	-	-	-	-	-	-	4	-	-	-	-	6	2	-
16. Medak	-	-	-	-	-	-	-	-	3	3	-	-	1	3	2	-
17. Mahboobnagar	-	3	3	-	-	1	1	-	-	1	-	-	1	1	1	-
18. Nalgonda	-	-	1	-	-	2	2	-	1	1	-	-	1	3	1	-
19. Khammam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. Warangal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Karimnagar	-	-	-	-	1	1	-	-	1	3	-	-	1	3	2	-
22. Nizamabad	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23. Adilabad	-	-	-	-	-	-	-	-	2	4	-	1	2	2	1	-
Total	4	9	14	-	3	4	16	3	11	25	28	2	14	13	44	14

Note: 1) Group I: Schools with APPEP classrooms and with Teachers' Centre (T.C.)
Group II: Schools with APPEP classrooms and without Teachers' Centre (T.C.)
Group III: Schools without APPEP classrooms and with T.C.
Group IV: Schools without APPEP classrooms and without T.C.

2) U : Urban, SU : Semi Urban, R : Rural, T : Tribal.

3) The 20 pilot schools of Phase-I were also selected and included in the sample for the main survey.

ANDHRA PRADESH PRIMARY EDUCATION PROJECT
DISTRICT WISE NUMBER OF SCHOOLS SELECTED FOR
MAIN SURVEY-I (YEAR: 1991-92)

District	Group-I				Group-II				Group-III				Group-IV			
	U	SU	R	T	U	SU	R	T	U	SU	R	T	U	SU	R	T
1. Srikakulam	-	-	2	-	-	-	2	-	1	1	2	-	1	-	3	-
2. Vizianagaram	-	-	-	-	-	-	-	-	2	4	-	-	2	4	-	
3. Visakhapatnam	-	3	-	-	-	3	-	-	1	1	1	-	-	2	1	
4. East Godavari	-	-	-	-	-	-	-	2	1	4	-	1	1	3	-	
5. West Godavari	-	-	-	-	-	-	-	1	2	3	-	1	1	4	-	
6. Krishna	-	-	-	-	-	1	-	2	1	3	-	2	-	3	-	
7. Guntur	-	-	-	-	-	-	-	1	2	3	-	2	1	2	1	
8. Prakasam	2	1	1	-	1	1	-	-	1	1	-	-	-	1	1	
9. Nellore	-	-	-	-	-	-	-	2	1	3	-	2	1	3	-	
10. Chittoor	-	-	-	-	1	1	-	1	1	2	-	1	1	3	1	
11. Cuddapah	-	2	-	-	-	-	-	-	1	4	-	-	-	5	-	
12. Anantapur	1	1	2	-	1	1	-	1	1	1	-	-	-	1	1	
13. Kurnool	-	-	-	-	-	-	-	1	2	3	-	1	1	3	1	
14. Hyderabad	-	-	-	-	3	-	-	4	-	-	-	5	-	-	-	
15. Rangareddy	-	-	1	-	-	3	-	-	3	-	-	-	-	4	1	
16. Medak	-	-	-	-	-	-	-	-	2	4	-	-	1	4	1	
17. Mahaboobnagar	-	3	3	-	-	1	1	-	-	2	-	-	-	1	2	
18. Nalgonda	-	-	-	-	1	2	1	-	1	1	-	1	1	3	1	
19. Khammam	-	-	-	-	-	-	-	-	2	4	-	-	1	3	2	
20. Warangal	-	-	-	-	-	-	-	2	2	2	-	1	1	3	1	
21. Karimnagar	-	-	-	-	1	2	-	-	1	2	1	-	1	3	1	
22. Nizamabad	-	-	-	-	-	-	-	-	2	4	-	-	1	5	-	
23. Adilabad	-	-	-	-	-	-	-	1	1	3	1	1	-	3	2	
Total	3	10	9	-	5	5	17	2	19	31	56	3	19	14	66	17

Note: 1) Group I: Schools with APPEP classrooms and with Teachers' Centres (T.C.)
Group II: Schools with APPEP classrooms and without Teachers' Centres (T.C.)
Group III: Schools without APPEP classrooms and with Teachers' Center.
Group IV: Schols without APPEP classrooms and without Teachers' Centre.

2) U : Urban, SU : Semi Urban, R : Rural, T : Tribal.

ANNEXURE - II
ANDHRA PRADESH PRIMARY EDUCATION PROJECT
HYDERABAD
MAIN SURVEY - 1991
SCHEDULE - I
(Questions 1 to 30)

Instructions:

1. The Schedule I containing questions 1 to 30 should be filled in by the Head Teacher of the APPEP (trained) school/APPEP (not trained) school only.

2. To the question, which is followed by given answers and which requires only one answer, please indicate your response by writing the letter (A or B or C etc...) of your choice in the box provided at the right hand side.

Eg: Q 3-i) Management of your school:

- A) Government
- B) Mandal Praja Parishad
- C) Municipality
- D) Private aided
- E) Private unaided

Answer 3-i)

B

3. To the question, which is followed by given answers and which requires one or more answers, indicate your responses by first putting tick _/ marks in the brackets against your choices, and then writing the letter 'T' in each of the boxes that correspond to the ticked brackets. You may please write letter 'F' in the remaining boxes (that correspond to the unticked brackets).

Eg: Q.10) Is the school building used for other purposes?

- | | | | | |
|--|--------|-------|--|----------|
| A) Non formal Education Centre | (_/) | 10-A. | <table border="1" style="border-collapse: collapse; width: 40px; height: 20px; text-align: center;"><tr><td>T</td></tr></table> | T |
| T | | | | |
| B) Adult Education Centre | () | B. | <table border="1" style="border-collapse: collapse; width: 40px; height: 20px; text-align: center;"><tr><td>F</td></tr></table> | F |
| F | | | | |
| C) Panchayat meetings | () | C. | <table border="1" style="border-collapse: collapse; width: 40px; height: 20px; text-align: center;"><tr><td>F</td></tr></table> | F |
| F | | | | |
| D) Religious purposes | () | D. | <table border="1" style="border-collapse: collapse; width: 40px; height: 20px; text-align: center;"><tr><td>F</td></tr></table> | F |
| F | | | | |
| E) Teacher centre | (_/) | E. | <table border="1" style="border-collapse: collapse; width: 40px; height: 20px; text-align: center;"><tr><td>T</td></tr></table> | T |
| T | | | | |
| F) Other community purposes (marriages etc.) | (_/) | F. | <table border="1" style="border-collapse: collapse; width: 40px; height: 20px; text-align: center;"><tr><td>T</td></tr></table> | T |
| T | | | | |
| G) None | () | G. | <table border="1" style="border-collapse: collapse; width: 40px; height: 20px; text-align: center;"><tr><td>F</td></tr></table> | F |
| F | | | | |

4. In furnishing information to question 4, the following criteria should be kept in view while describing the area in which the school is situated.

- A) All cities/towns having municipalities are urban areas
- B) All Mandal Headquarters and major Panchayats are semi-urban areas
- C) All notified tribal areas are to be treated as tribal areas.

D) The rest are rural areas.

5. To questions which will have numbers as answers, please record your response by writing the digits of the number legibly in the boxes provided.

Eg.Q.14) Please estimate how many of the children have to travel more than one kilometer to reach the school (If your answer is, say, 5 write it as shown here)

Answer 14

0	0	5
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SCHOOL CODE

STATE		DISTRICT		MANDAL		SCHOOL		
0	1							

APPEP (TRAINED) SCHOOL
APPEP (NOT TRAINED) SCHOOL

*[If yours is an APPEP trained school, strike off APPEP (not trained) school and vice versa]

SCHEDULE 1
MAIN SURVEY QUESTIONNAIRE
FOR APPEP AND NON-APPEP SCHOOLS
(To be filled in by Head Teacher only)

Please answer all the questions as carefully and honestly as you can. Do not leave any code box blank. Be prepared to praise or criticise yourself or others, whichever you feel is appropriate. The answers to this questionnaire will be regarded as confidential and will only be used to prepare statistical reports.

GENERAL INFORMATION

1. Name of the school _____
2. Address: (A) Village/town/city _____
(B) Mandal _____
(C) District _____

Note: Questions 3 to 9 in this section are followed by more than one alternative. Write the letter (A or B or C etc....) indicating your choice in the boxes provided at the right hand side.

3-i. Management of school

- A) Government
- B) Mandal (MPP)
- C) Municipal
- D) Private aided
- E) Private Unaided
- F) Others

3.i.

3-ii. Is the school an Ashram school?

- A) Yes
- B) No

3.ii.

4. How would you describe the area in which the school is situated?

- A) Urban
- B) Semi-Urban
- C) Rural
- D) Tribal

4.

5. Ownership of school building (Please keep in view the major portion of the building)

- A) Own
- B) Rented
- C) Rent free

5.

6. Type of school building (Please keep in view the majority of the rooms)

- A) Pucca
- B) Semi-pucca
- C) Thatched sheds
- D) No building (open-air)
- E) Temple
- F) Mosque
- G) Private house

6.

7. How would you describe the economic status of the majority of the parents who send their children to your school?

- A) Very well-off
- B) Well-off
- C) Of average wealth
- D) Poor
- E) Very poor

7.

8. Please describe the literacy levels of the majority of the parents of your pupils.

(i) Males

- A) Literate
- B) Illiterate

8-i.

(ii) Females

- A) Literate
- B) Illiterate

8-ii.

9-i. What would you estimate is the average income of parents who send their children to your school?

- A) Less than Rs. 6,000 per year
- B) Between Rs. 6,000 and Rs. 12,000 per year

9-i.

C) More than Rs. 12,000 Rs. per year.

*9-ii. Where do most of your pupils reside ?

- A) With their parents
- B) With relatives/known people
- C) In hostel (s)

9-ii

Note: Questions 10 - 12 are followed by several alternatives. Please tick as many as necessary. Write letter 'T' in the boxes that correspond to the ticked brackets and letter 'F' in the boxes that correspond to the unticked brackets.

10. Is the school building used for other purposes?

- A) Nonformal Education Centre ()
- B) Adult Education Centre ()
- C) Panchayat Meetings ()
- D) Religious Purposes ()
- E) Teacher Centre ()
- F) Other Community Purposes ()
(marriages etc.)
- G) None ()

10-A)
B)
C)
D)
E)
F)
G)

11. What are the two main working occupations of the parents of your pupils?
(Tick only two. The figure '1' should be found only in two boxes. Please put '0's in each of the remaining boxes).

- A) Farmer ()
- B) Agricultural Labourer ()
- C) Other Labourer ()
- D) Businessman ()
- E) Barber ()
- F) Washerman ()
- G) Fisherman ()
- H) Potter ()
- I) Cobbler ()
- J) Carpenter ()
- K) Weaver ()
- L) Employee (Govt Private) ()
- M) Goldsmith ()
- N) Beedi Workers ()
- O) Blacksmith ()
- P) Tailor ()

11-A)
B)
C)
D)
E)
F)
G)
H)
I)
J)
K)
L)
M)
N)
O)
P)

12. What language(s) is/are used as the official medium (s) of instruction in your school?

A) Telugu	()	12-A)	<input type="text"/>
B) Urdu	()	B)	<input type="text"/>
C) Hindi	()	C)	<input type="text"/>
D) Tamil	()	D)	<input type="text"/>
E) Kannada	()	E)	<input type="text"/>
F) English	()	F)	<input type="text"/>
G) Oriya	()	G)	<input type="text"/>
H) Marathi	()	H)	<input type="text"/>

Note: Questions 13-14 will have numbers as answers. Please write the digits of the number legibly in the boxes at the right hand side. (see instruction 5 at the beginning)

13. Please enter for each language below the approximate number of children at your school who speak that language at home (i.e. who have it as their mother-tongue).

A) Telugu	13-A)	<input type="text"/>
B) Urdu	B)	<input type="text"/>
C) Hindi	C)	<input type="text"/>
D) Tamil	D)	<input type="text"/>
E) Kannada	E)	<input type="text"/>
F) Oriya	F)	<input type="text"/>
G) Marathi	G)	<input type="text"/>
H) Tribal language	H)	<input type="text"/>

14. Please estimate how many of the children have to travel more than one kilometer to reach the school.

14.

BUILDING AND PHYSICAL FACILITIES

Note: Questions 15-20 in this section are followed by more than one alternative. Write the letter (a or b or c etc....) indicating your choice in the boxes provided at the righthand side.

15. Please describe the area of your school garden

A) Very good	15.	<input type="text"/>
B) Adequate		
C) Poor		
D) None		

16. Please describe your school playground

A) Very good	16.	<input type="text"/>
B) Adequate		

- C) Poor
- D) None

17. Please describe the average quality of the natural light, for children's study, in the classrooms of your school.

- A) Very good
- B) Adequate
- C) Poor
- D) None

17.

18. Please describe the toilets in your school.

(i) For teachers:

- A) Very good
- B) Adequate
- C) Poor
- D) None

18) (i)

(ii) For the pupils:

- A) Very good
- B) Adequate
- C) Poor
- D) None

18) (ii)

19. Please describe the source of drinking water in your school.

- A) Borewell
- B) Open well
- C) Tap
- D) None

19.

20. Please describe the supply of electricity in your school.

- A) To all rooms
- B) To some rooms
- C) To no rooms

20.

Note: Please think of numbers as asked for, to Qs 21-22, and write them in the boxes provided at the right hand side.

21.(i) How many classes are there in your school?

21-i)

(ii) How many sections are there in your school?

21-ii)

22. (A) Please record the number of rooms in the school. (Write the number in the box provided against each)

(i) No. of large classrooms (Halls)

22 (A) (i)

- (ii) No. of class rooms of normal size
- (iii) No. of other rooms

22 (A) (ii)
22 (A) (iii)

- (B) No. of classes run in verandahs/Open area

22 (B)

--

EDUCATIONAL FACILITIES, EQUIPMENT AND LIBRARY

Note: Please think of numbers as asked for, to Qs. 23-25 and write those numbers in the boxes provided.

23. Please record the number of each of the following in your school.

- A) Blackboards
- B) Globes
- C) Maps
- D) Alphabetical charts
- E) Abacus
- F) Audio cassettes
- G) Video cassettes
- H) Audio Cassette Player or Recorder
- I) Video Cassette Player or Recorder
- J) Television
- K) Radio
- L) Science kit
- M) Maths kit
- N) Mini tool kit
- O) Educational Models
- P) Musical Instruments

23 A)
B)
C)
D)
E)
F)
G)
H)
I)
J)
K)
L)
M)
N)
O)
P)

24. Please record the number of books in the school under the following headings:

- A) Reference Books/Dictionaries
- B) APPEP Teachers' Handbooks
- C) Class Textbooks
- D) Supplementary Reading Books for Pupils

24-A)
B)
C)
D)

25. Please record the number of each of the following in your school:

- A) Chairs (of all types)
- B) Tables
- C) Almirahs (Metal/Wooden, Big/Small)

25-A)
B)
C)

- D) Benches/Seating planks
- E) Record Boxes (Metal/Wooden)
- F) Stools
- G) Clocks (Big ones like wall clocks)
- H) Alarm clocks
- I) School Bells
- J) Gardening tools (Shovel, Crow-bar etc.)
- K) Carpenter's tools

- D)
- E)
- F)
- G)
- H)
- I)
- J)
- K)

Note: Write the figure indicating your choice in the box provided

26. Have you any sports material in your school

- A) Yes
- B) No

DETAILS OF CONSTRUCTION OF ADDITIONAL CLASSROOMS

27. Please fill in the table below to show how many classrooms have been added to your school prior to 1989-90, during 1989-90, and 1990-91 under different sources

	No. of Classrooms Built				
	By APPEP	By OBB	By ZPP/ MPP	By voluntary organisation	By local people (Donations /Shramdan)
Prior to 1989-90					
During 1989-90					
During 1990-91					

28. Do you know of any plans to build additional classrooms for your school in 1991-92 and afterwards? Again, please fill in the table:

(If the number is nil, please put '0's)

	No. of Classrooms likely to be Built				
	By APPEP	By OBB	By ZPP/ MPP	By voluntary organisation	By local people (Donations /Shramdan)
During 1991-92 or afterwards					

TEACHING STAFF

NOTE : Please fill the table under 29-A to 30 carefully

29-A Please fill the table below. APPEP (not trained) Schools may leave it blank, if there is no information to provide.

Sl. No.	Name of the Teacher	Whether attended APPEP Courses (Pl.put, if you have attended)			Please where courses were held (Enter only if you have attended)			Dates of courses (Enter only if you have attended)		
		DIET Level Course	3-day follow-up Course	One-day T.C. Meeting	DIET Level Course	3-day follow-up Course	One-day T.C. Meeting	DIET Level Course	3-day follow-up Course	One-day T.C. Meeting
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										

29-B Please fill the table below :

Note : i) If male, please write M If female, please write F in Col.3

ii) To enter subject under Col.9, write A for Language, B for Maths, C for E.S.I. and D for E.S.II

iii) Please follow the codes given below for Academic and Professional qualifications of teachers, as indicated below. (Columns 5 and 6)

Academic Qualification	Code	Professional Qualification	Code
Below Merit	A	Higher Grade / EGBT	A
Metric / SSC	B	S.G.B.T / TTC	B
Intermediate	C	Telugu Pandits / Hindi Pandits/	
Vidwan/Visarad	D	Urdu Munishi	C
Graduate (B.A., B.Sc., Bcom.)	E	B.Ed	D
Post-Graduate (M.A., M.Sc., M.Com.)	F	M.Ed	E

Sl. No.	Name of the Teacher (including Head)	Male or Female	OC, BC, SC or ST (Pl. indicate)	Qualifications		Total Service in years	Classes handled	Subjects taught
				Acad/	Prof.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								

30. How many teachers reside in the village / town where the school exists ?

Signature of the Headteacher :

Name in Capitals :

Date :

SCHEDULE II
(PARTS - A, B & C)
INSTRUCTIONS

Part - A (Pupil Enrolment and Absenteeism)

1. This part should be filled in by Head teacher of the school.
2. Clear instructions for filling up the Part-A of this schedule are in the schedule itself.

Part - B (Absenteeism Proforma)

1. This part should be filled in by the HRD Lecturer of DIET himself personally and not left to the Headteacher.
2. Count the number of children marked present in the register in each class and record on the proforma.
3. Count the number of children actually present in each class and record on the proforma.
4. If there are discrepancies between children marked present in the register and those actually present, select one class where there is a large discrepancy, and ask the teacher quietly and politely about some of the absentees - why he marked attendance for children not present. Record some of the remarks on the proforma.

Part - C (Drop-out in Class I Proforma)

1. This part should be filled in by the HRD Lecturer of DIET with the cooperation of Head teacher.
2. For Class I, record the names of all pupils who are currently absent from school and have been absent for 1 month or more.
3. Ask teacher for reasons for the absence of each pupil above. If you are convinced that a particular pupil is very much likely to return to school or is likely to join some other school (because of reasons like the family shifting to another locality/village), treat all such pupils as non-dropouts and the others as dropouts. Record reasons for absence of each one of them (e.g. left village for livelihood, poverty-to assist parents in labour etc.) and put '-' mark against the names of each of them under the column "drop-out". Also put the total number of drop-outs at the bottom.

Note : Make sure that the teacher realises that you are not reporting his or her name to the authorities. The information will be confidential. We need the information to make an accurate record of the effects of applying APPEP methods in the classroom.

ANDHRA PRADESH PRIMARY EDUCATION PROJECT

SCHEDULE II

	STATE	DISTRICT	MANDAL	SCHOOL
SCHOOL CODE *	0	1		

*	APPEP (TRAINED) SCHOOL
	APPEP (NOT TRAINED) SCHOOL

* Strike off which ever is not applicable

PART A

(To be filled in by the Headteacher)

Name of the school : _____
 Village/Town/City : _____
 Mandal : _____
 District : _____

1. Total no. of children in each class as on 30-9-1990.

	S.C.		S.T.		B.C.		O.C.		Total	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Class I										
Class II										
Class III										
Class IV										
Class V										

2. Please record in the following table the number of children who were on the school roll as per the attendance register on 31-3-1991.

	S.C.		S.T.		B.C.		O.C.		Total	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Class I										
Class II										
Class III										
Class IV										
Class V										

3. Please record in the following table the number of children who were continuously absent in the month of March, 1991.

	S.C.		S.T.		B.C.		O.C.		Total	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Class I										
Class II										
Class III										
Class IV										
Class V										

4. Total number of children in each class as on 30-9-1991.

	S.C.		S.T.		B.C.		O.C.		Total	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Class I										
Class II										
Class III										
Class IV										
Class V										

5. Please record in the following table the number of children who were continuously absent in the month of October, 1991.

	S.C.		S.T.		B.C.		O.C.		Total	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Class I										
Class II										
Class III										
Class IV										
Class V										

SIGNATURE OF HEAD TEACHER :

NAME IN CAPITALS :

DATE :

SCHEDULE II

PART B

ABSENTEEISM PROFORMA

(To be filled in by HRD lecturer of DIET)

Date of Visit to school by HRD lecturer :

Day		Month		Year	

1. Absenteeism of pupils - Classwise - on the day of visit :

Class (1)	Pupils marked present in the attendance register (2)		Pupils in classroom counted (3)		Difference (2)-(3) (4)	
	Boys	Girls	Boys	Girls	Boys	Girls
Class I						
Class II						
Class III						
Class IV						
Class V						

2. Reasons for discrepancies in class

(Please choose and write the class having the largest discrepancy, in the blank above)

- a)
- b)
- c)
- d)

3. Record number marked "present" in the register for the same day in the previous week. If the school remained closed on that day, please go to the previous week.

Class	Boys	Girls
Class I		
Class II		
Class III		
Class IV		
Class V		

SIGNATURE OF THE HRD LECTURER OF DIET :

NAME IN CAPITALS :

DATE :

SCHEDULE II
PART C
DROPOUT IN CLASS I - PROFORMA
(To be filled in by HRD lecturer of DIET)

Instructions :

List the names of the pupils of Class I who had been absent for 1 month in the month prior to your visit (From register or information from teacher). Obtain the reasons for absence from the classteacher. Try to find if the pupil has resumed attending or is very much likely to resume attending school, or if the pupil has, in fact, stopped attending school. (See instruction 3 under Part C again)

2. In column 3, write 'B'for boy, and 'G' for girl.
3. In coulmn 4, use the codes given below to record reasons for absence.

	Reason	Code
1.	Illhealth	A
2.	To assist parents indoors/outdoors	B
3.	To labour to earn wage due to poverty	C
4.	Left village for livelihood	D
5.	Left village due to transfer of parents (Father/Mother employees)	E
6.	Shifted locality	F
7.	To attend important events (marriage/pilgrimage)	G
8.	Joined some other school	H

Note : A pupil need not necessarily be a dropout, if he/she has been absent from school due to reasons A, E, F, G, and / or H .

- 4 In column 5, put a tick mark (-/), if you think the pupil is a dropout.

S.No.	Name of pupil of class I	Boy/Girl (B / G)	Reason(s) for absence (Please use codes)	Whether dropout or not (please tick, if dropout)
(1)	(2)	(3)	(4)	(5)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
Total:				

NOTE : If the number goes beyond 20 please record on a separate sheet of paper (In the same format) and attach it to this.

SIGNATURE OF HRD LECTURER OF DIET :

NAME IN CAPITALS :

DATE :

SCHOOL CODE

STATE		DISTRICT		MANDAL		SCHOOL		
0	1							

APPEP(Trained) School

APPEP(Not Trained) School

* If yours is an APPEP(Trained)school, strike off APPEP (Not Trained) school & vice versa

SCHEDULE III

(PARTS - A & B) Test Scores of pupils

INSTRUCTIONS

Part A-(Test scores of pupils for the Academic year 1989-90 proforma)

1. The marks secured by a sample of the pupils in the 1989-90 annual examination of class III and class V (For the subjects Telugu, Mathematics, Environmental studies I and II) should be recorded in the proforma. A 20% sample is required, balanced for boys and girls. Thus the marks of the 1st, 5th, 10th, 15th 20th etc. boys on the class rolls and the marks of the 1st, 5th 10th, 15th, 20th etc. girls on the class rolls.

2. If any pupil whose class roll no is 1, 5, 10 or 15 etc is absent for the whole annual exam, the marks of the pupil with the next roll number should be taken for this purpose. (i.e. 2, 6, 11 etc.)

3. If classes 5 and 3 are divided into "sections" please ensure that the sample of scores covers all "sections", selected and balanced as per instructions 1 and 2.

4. If the no. of boys or girls in Class III/Class V is less than 20, the scores of boys or girls with Roll Nos. 1,3,5,7,9 etc. should be furnished upto a maximum of five boys and five girls.

5. If the no. of boys or girls on rolls in Class III and Class V is less than 5, please record the annual exam scores of all the boys and/or girls.

Part B (Test scores of pupils for the Academic year 1990-91 proforma)

1. The marks secured by the pupils in the annual examination for the academic year 1990-91 for class III and class V should be recorded on proforma as indicated in part A.

SCHEDULE III

PART A

(TO BE FILLED IN BY THE HEADTEACHER ONLY)

Name of the school : _____

Village / Town : _____

Mandal : _____

District : _____

Class III

TEST SCORES OF PUPILS FOR THE ACADEMIC YEAR 1989 - 90 PROFORMA

Sl. No.	Class	Name of the Pupil	Marks secured by the pupils in annual exam 89-90							
			Telugu		Maths		E S I		E S II	
			Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										
15.										
16.										
17.										
18.										
19.										
20.										

Note : If the pupil is a boy, enter marks in 'Boys' column and if the pupil is a girl, enter marks in 'Girls' column.

Class V

TEST SCORES OF PUPILS FOR THE ACADEMIC YEAR 1989 - 90 PROFORMA

Sl. No.	Class	Name of the Pupil	Marks secured by the pupils in annual exam 89-90							
			Telugu		Maths		E S I		E S II	
			Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										
15.										
16.										
17.										
18.										
19.										
20.										

Note : If the pupil is a boy, enter marks in 'Boys' column and if the pupil is a girl, enter marks in 'Girls' column.

SCHEDULE III

PART B

(TO BE FILLED IN BY THE HEADTEACHER ONLY)

Class III

TEST SCORES OF PUPILS FOR THE ACADEMIC YEAR 1990 - 91 PROFORMA

Sl. No.	Class	Name of the Pupil	Marks secured by the pupils in annual exam 90-91							
			Telugu		Maths		E S I		E S II	
			Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										
15.										
16.										
17.										
18.										
19.										
20.										

Note : If the pupil is a boy, enter marks in 'Boys' column and if the pupil is a girl, enter marks in 'Girls' column.

Class V

TEST SCORES OF PUPILS FOR THE ACADEMIC YEAR 1990 - 91 PROFORMA

Sl. No.	Class	Name of the Pupil	Marks secured by the pupils in annual exam 90-91							
			Telugu		Maths		E S I		E S II	
			Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										
15.										
16.										
17.										
18.										
19.										
20.										

Note : If the pupil is a boy, enter marks in 'Boys' column and if the pupil is a girl, enter marks in 'Girls' column.

SIGNATURE OF THE HEAD TEACHER :

DATE :

ANDHRA PRADESH PRIMARY EDUCATION PROJECT

SCHEDULE IV

STATE		DISTRICT		MANDAL		SCHOOL		
0	1							

* CODE

APPEP(trained)School
APPEP(not-trained)School

* Strike off whichever is not applicable

INSTRUCTIONS AND EXPLANATION OF CODES FOR CLASSROOM OBSERVATION

The codes are intended to make possible the recording of classroom activity for every two minutes. They are designed to measure traditional and APPEP activities but there will be times when the codes do not cover an activity. If this happens please explain in a covering note on the back of the proforma how you have recorded the activity. It will be coded later.

Procedure :

1. Note the time of your starting the observations at the top of the time column and record first observation 2 minutes later against 2. The number in the column will then tell you how many minutes you need to add on to the starting time for each observation.
2. At first it will take you quite a long time to record each set of six codes. Take note of the classroom activity (teacher and pupil) at the appropriate time and search the columns for the nearest descriptive code. Do not worry if the classroom activity changes while you are searching and recording. You can pick up the change when you make the next observation. As you become more experienced and the classroom settles down the coding becomes easier and quicker.
3. When you have established the coding routine begin to write the short description of the lesson in the space below the columns. Please note the seating arrangement in the class as part of the description eg. rows, circles, groups etc.

4. During your visit to the school you will observe two lessons. Please record only one using the proforma. If the lesson lasts more than 40 minutes stop recording when the proforma is full. If it is shorter, please draw a line across the proforma.

The Codes :

The codes are designed so that the first three cover teacher activity and the second three describe pupil learning activity.

Teacher Talk :

This is the most straight forward code. It simply measures the amount of teacher talk and to whom the talk is directed. Note that (tiw) and (tgw) cover situations when the teacher is talking to an individual or group but intends the whole class to hear.

Teacher Talk - the nature of the talk :

The dimension measures some dimensions of the nature of the talk. Reprimanding and praising are fairly obvious extremes on this scale. Telling is a very common teacher activity and here it includes explanation. The most difficult codes are the three grades of questioning; checking recall '(tqr) simply questions about something the pupils have been told before (this lesson or past lessons); encouraging individual response (tqe) indicates a question that poses a deeper problem and the teacher encourages the pupils to think more deeply before replying; generating a discussion (tqd) indicates a question that the teacher puts to the class and then enables the class or groups in the class to discuss it among themselves. This indicates a high level teaching activity in line with APPEP principles. So it is important to recognise this activity whenever and wherever it occurs.

Teacher Activity ; Pedagogic and non-pedagogic activity :

Very occasionally teachers withdraw from teaching but remain in the classroom. They may receive a visitor and talk to them, or they may day dream. This would be coded 0. All the rest of the codes relate to pedagogic activity and are fairly straight forward descriptions of teacher behaviour. For example 'Doing own work' refers to activities like reading a text book to revise part of the lesson or looking for materials in a cupboard i.e. work related to teaching.

1. Pupil Behaviour :

The first code relates to the way pupils are organised at the time when the observations are made, for example, 'working in groups', as individuals', or 'as a class'. 'Working as a class', refers to times when the teacher is talking to the whole class. i.e. the teacher expects the whole class to be listening or looking. This can sometimes be confusing because the teacher might be talking to an individual but doing it in a way that is intended to attract the attention of the whole class. Working as a class (pc) can therefore be defined as times when

the teacher expects the whole class to be paying attention to what he or she is saying or what a pupil is saying as a result of being asked a question by the teacher. Note that the pupils may be organised into groups but if the teacher is talking to the whole class and they are all expected to pay attention to the teacher, they are no longer working in groups (pgc is the correct code). Also, the pupils may be sitting in groups but the teacher may have set them individual work tasks, say copying from a card into their own books. (pgi is the correct code). Finally the teacher might be writing on the Blackboard and expecting all the class to be paying attention to him or her but also for them to be copying the writing into their book. (the correct code is pc;). Note that (pg) refers to being organised as groups and working in a group i.e. it involves some cooperation and some communication between group members.

2. Pupil Talk :

This dimension measures whether pupils are talking and if so, the type of talk that they are engaged in. Most of these codes are straight forward, for example (ps) - pupils silent or (ptg) talking in groups. However, it is important to realise that talking in groups" refers to talk about the learning task. If pupils are merely chattering about other things the correct code is (pch) and this applies whether they are in groups or in pairs or organised as a whole class. The most important code in the dimension for measuring the application of APPEP principles is (pqt). Child centered education encourages children to ask questions. However, if the child merely asks a question about the organisation of the lesson (needs a pen, or paper or does not know what to do) or needs to go to the toilet; this kind of question does not fulfil that purpose. You should record (pgto) (organisation) for that kind of question. (pqt) should stand for questions about the content of the lesson, e.g. the child does not understand a point that has been made or the child asks if, an example that they know about, is similar to the point the teacher is making. (pqt) should indicate that the child is seeking understanding.

3. Pupil Learning Activity :

This code is a very varied one and should tell us about the variety of learning activities in APPEP and non-APPEP classes. Some of these codes describe the whole activity, for example (pcp) tells us the pupils are copying from books or charts etc. Other codes in this dimension qualify an activity that has already been described in column 5. For example (prc) tells us that the children are repeating in chorus and thus qualifies (pat) in column 5. i.e. the questions or instructions are not being put to individual pupils. Please note that (pri) is a code that contains a measure of APPEP principles in this dimension. (Pri) should refer to pupils recording their own information i.e. not copying from the blackboard or a book. Also (psp) relates to pupils solving problems and this can be used to include maths problems as well as problems in other subjects. This is the dimension where you will be tempted to add descriptions of your own. Please remember to note the full meaning on the back of the proforma.

KEY FOR TEACHER BEHAVIOUR

FOR APPEP(TRAINED) AND APPEP(NOT TRAINED) SCHOOLS

(To be filled in by HRD lecturer of DIET who visits the school)

1. The first dimension is whether the teacher is talking, and to whom, or whether the teacher is silent. The suggested codes are as follows:

Teacher talking to	(i)	Whole class	tw
	(ii)	Individual	ti
	(iii)	Individual but for benefit of whole class	tiw
	(iv)	Group	tg
	(v)	Groups but for benefit of whole class	tgw
Teacher silent		ts	

2. The second dimension concerns the detailed nature of teacher talk and, in particular, questioning behaviour. Codes are as follows:

No talking		O
Reprimanding		tr
Telling		tt
Questioning:	Checking recall of knowledge	tqr
	Encouraging individual pupil response	tqe
	Generating Discussion	tqd
Praising		tp

3. The third dimension - teacher activity - again concerns the nature of teacher activity, but in more detail. The suggested codes which cover pedagogic and non-pedagogic activity are as follows:

No pedagogic activity	O
Observing	to
Doing own work (related to lesson)	tow
Writing on blackboard	tbb
Demonstrating or displaying work	td
Reading from book	tbk
Helping individual (or small group)	thi
Giving instruction	tgi
Giving material	tgm
Conducting games	tcg
Marking(or correcting pupils work)	tm

Key for pupil behaviour :

Again, there are a number of dimensions.

1. The first concerns the way in which the pupils are organised for learning. The suggested codes are as follows :

Organised and Working as a class	pc
Organised and Working as class but working individually	pci
Organised and Working in a group	pg
Organised in groups but working individually	pgi
Organised and Working in pairs	pp
Organised in groups but working as class	pgc
Organised and Working individually	pi

2. The second dimension records whether the pupils are talking and, if so, the type of talk the pupils are engaged in. Codes are as follows:

Silent		ps
Talking	Answering teacher	pat
	Questioning teacher(Content)	pqt
	Questioning about organisation	pqto
	Talking in pairs	ptp
	Talking in groups	ptg
	Talking to whole class	ptc
	pupils chatter	pch

3. The third dimension concerns pupil learning activity. Codes are as follows:

Copying	From blackboard or chart	
	From book	pcp
	From dictation	
Working with materials		pwm
Recording own information		pri
Drawing pictures		pdp
Playing		pp
Singing or reciting		psr
Dancing		pd
Listening		pi
Pupil reading (out)		pro
Pupil solving problems		psp
Repeating in chorus		prc
Calling out to teachers or pupils		pcp

ANDHRA PRADESH PRIMARY EDUCATION PROJECT
SCHEDULE IV
FOR APPEP AND NON-APPEP SCHOOL
CLASSROOM OBSERVATION SCHEDULE

Name of the school : _____
 Village : _____
 Mandal : _____
 District : _____

Class : _____ **Date :** _____

Time Started : _____ **Subject :** _____

Time	Teacher Dimension			Pupil Dimension		
	Teacher Talk to	Type of Talk	Pedagogic Activity	Class Group Individual	Pupil Talk	Pupil Activity
2						
4						
6						
8						
10						
12						
14						
16						
18						
20						
22						
24						
25						
26						
28						
30						
32						
34						
36						
38						
40						

**NAME OF THE TEACHER
WHOSE LESSON IS OBSERVED :**

1. Classroom observation. Does the classroom have a display of pupil's work ?

a) Yes

b) No

1

2. If Yes, Is the display well organised and attractive ?

a) Well organised

b) An Acceptable standard

c) Poorly organised

2

**SHORT DESCRIPTION OF LESSON OBSERVED INCLUDING SOME REMARKS
ON CONTENT.**

**(IT INCLUDES 6 APPEP PRINCIPLES, SEATING ARRANGEMENT IN THE CLASS,
WHETHER THE GROUPS ARE MIXED OR SINGLE GENDER, ETC.)**

**SIGNATURE OF HRD LECTURER OF DIET :
NAME IN CAPITALS :
DATE :**

ANDHRA PRADESH PRIMARY EDUCATION PROJECT

SCHOOL CODE	STATE		DISTRICT		MANDAL		SCHOOL		
	0	1							

APPEP (trained) School

SCHEDULE V

(Individual Teacher Schedule)

(Questions from 1 to 39)

Instructions :

1. This schedule should be filled in by the headteacher and other teachers of APPEP – trained school, one schedule each.
2. To the question which is followed by given answers and which requires only one answer, please indicate your answer by writing the letter (A or B or C or D...) of your choice in the box provided against that question.

Eg. Q.1 How frequently has the M.E.O. visited your school in the last 12 months?

- A) None
- B) Once
- C) Twice
- D) Three or more times

1. B

3. To the question which is followed by given answers and which requires one or more answers, please indicate your answers by ticking (./) in the brackets against your choices. Please also write letter 'T' in each of the boxes that correspond to the ticked brackets. Please write letter 'F' in the remaining boxes (that correspond to the unticked brackets)

Eg. Q.17 What methods of assessment do you use with your pupils?

A) Unit tests	(./)	17-a)	T
B) Examinations (Quarterly, Half yearly etc.)	(./)	b)	T
C) Assignments (by classwork)	(./)	c)	F
D) Assignments (by homework)	(./)	d)	T
E) Oral testing	(./)	e)	F
F) Others	(./)	f)	F

4. To questions which require numbers as answers, please indicate your answer by writing the digits of the number legibly in the boxes provided

Eg. Q.11 How many times have you been able to organise the display of your pupils' work, subjectwise, during the last week?

Subject		Number of displays			
i)	Language	(if not displayed)	11-i)	0	0
ii)	Mathematics	(if displayed once)	11-ii)	0	1
iii)	E.S.I	(if displayed thrice)	11-iii)	0	3
iv)	E.S.II	(if displayed twice)	11-iv)	0	2

5. If your answer to Question 3 is, say, 30th September 1990, write it as shown here:

Answer 3

Day		Month		Year	
3	0	0	9	9	0

6. Question 27 is for teachers only. (Not for Headteacher).

SCHEDULE V

(Questions 1 to 39)

[To be filled in by Headteachers and teachers (Each one)]

Name of the teacher : _____

Whether Teachers' Centre Secretary

Whether Teachers' Centre Asst. Secretary

Note : If yes, please write a tick mark in the boxes, otherwise write 'X' mark.

Name of the school : _____

Village/Town/City : _____

Mandal : _____

District : _____

Educational Support and Supervision

Academic Guidance

1. How frequently has the MEO visited your school in the previous 12 months?

A) None

B) Once

C) Twice

D) Three or more times

1.

2. How many demonstration lessons has the MEO given at your school in the last year?

A) None

B) One

C) Two

D) Three or more

2.

3. When did the MEO last inspect your school?

Date :

DAY		MONTH		YEAR	

4. How would you describe the guidance given by the MEO during his or her visits?

A) Very good

B) Adequate

C) Poor

4.

D) None

5. Please describe any follow-up action suggested by the MEO.

6. Please describe any follow-up action that you have carried out after the MEO's visits.

Teachers' Centre

7. Use of Teachers' Centre (T.C.) Meetings :

i) Have you presented any demonstration lessons at the T.C. ?

A) Yes

B) No

7-i)

ii) Have you attended demonstration lessons given by other teachers or head-teachers at the T.C. ?

A) Yes

B) No

7-ii)

iii) Have you exchanged ideas with other teachers or headteachers at the T.C. ?

A) Yes

B) No

7-iii)

iv) Have you displayed your pupils' work at the T.C. ?

A) Yes

B) No

7-iv)

8-i) Have you carried out field trips jointly with other schools at the T.C. ?

A) Yes

B) No

8-i)

ii) Have you made any teaching/learning aids at the T.C. ?

A) Never

B) Once

C) More than once

8-ii)

iii) Have you been involved in preparing institutional plans at T.C. ?

A) Yes

B) No

8-iii)

iv) Have you prepared unit or period plans at the T.C. ?

A) Never

B) Once

C) More than once

8-iv)

Teaching - Learning Processes

9. Please give some examples of locally available materials that you have collected at some time, during the last one year and used in the classroom during the last month ?

Materials collected

Topic & subject for which it was used

1.

2.

3.

4.

10-i) Have you organised any group activities in the last week?

A) Yes

B) No

10-i)

ii) If your answer to the above question is "yes", how many times, subject-wise?

Subject

Number of times

Language

Mathematics

ES I

ES II

11. How many times have you been able to organise the display of children's work in the previous week?

Subject

Number of times

Language

Mathematics

ES I

ES II

12. What educational games have you been able to organise in the last month ?

Subject	Name of the educational games
i) Language
ii) Mathematics
iii) E S I
iv) E S II

13. What local visits have you been able to undertake in the last month ?

Subject	Description of the visit
i) Language
ii) Mathematics
iii) E S I
iv) E S II

14. Have you been observing the way that children work together in groups in order to make improvements in your teaching?

- A) Yes
- B) No

14)

15. Have you been able to draw up lesson plans during the past week ?

Please indicate for each subject.

i)	Language	A) Yes	B) No	15-i)	<input style="width: 50px; height: 20px; border: 1px solid black;" type="checkbox"/>
ii)	Mathematics	A) Yes	B) No	15-ii)	<input style="width: 50px; height: 20px; border: 1px solid black;" type="checkbox"/>
iii)	E S I	A) Yes	B) No	15-iii)	<input style="width: 50px; height: 20px; border: 1px solid black;" type="checkbox"/>
iv)	E S II	A) Yes	B) No	15-iv)	<input style="width: 50px; height: 20px; border: 1px solid black;" type="checkbox"/>

16. All new methods of teaching have to overcome difficulties. Please choose upto five from the list and write letter 'T' in the boxes that correspond to the five choices; and letter 'F' in the remaining boxes. ('T' should be found only in five boxes and 'F' in each of the remaining boxes).

i)	School in remote and/or tribal area	16-i)	<input style="width: 50px; height: 20px; border: 1px solid black;" type="checkbox"/>
ii)	Few teaching resources available in school	16-ii)	<input style="width: 50px; height: 20px; border: 1px solid black;" type="checkbox"/>
iii)	Lack of suitable timetable	16-iii)	<input style="width: 50px; height: 20px; border: 1px solid black;" type="checkbox"/>
iv)	You do not speak mother tongue of pupils	16-iv)	<input style="width: 50px; height: 20px; border: 1px solid black;" type="checkbox"/>
v)	Large number of pupils in your class	16-v)	<input style="width: 50px; height: 20px; border: 1px solid black;" type="checkbox"/>
vi)	Need to cover prescribed curriculum	16-vi)	<input style="width: 50px; height: 20px; border: 1px solid black;" type="checkbox"/>

vii)	Need to prepare pupils for examinations	16-vii)	<input type="checkbox"/>
viii)	Physical characteristics and size of classroom	16-viii)	<input type="checkbox"/>
ix)	Multiple class teaching	16-ix)	<input type="checkbox"/>
x)	Classroom work disrupted by elections, census etc.	16-x)	<input type="checkbox"/>
xi)	Lack of community support for any new method of teaching	16-xi)	<input type="checkbox"/>
xii)	Lack of suitable training for teachers	16-xii)	<input type="checkbox"/>
xiii)	Length of instruction period being too short.	16-xiii)	<input type="checkbox"/>

ASSESSMENT

17. What methods of assessment do you use with your pupils ? (Please tick in the brackets against your choices and then write letter 'T' in the corresponding boxes. Please donot forget to write 'F' in each of the remaining boxes.)

a)	Unit tests	()	17 a)	<input type="checkbox"/>
b)	Examinations (Eg. Quarterly, Half yearly)	()	b)	<input type="checkbox"/>
c)	Assignments (by classwork)	()	c)	<input type="checkbox"/>
d)	Assignments (by homework)	()	d)	<input type="checkbox"/>
e)	Oral testing	()	e)	<input type="checkbox"/>
f)	Others	()	f)	<input type="checkbox"/>

Note : If you tick 'others', please indicate what they are.

18) Do your assessment methods help or hinder the implementation of APPEP teaching methods?

- A) Help
 - B) Hinder
 - C) Make no difference
18.

19-i) Do you think the traditional methods of assessment need to be changed in order to assist the introduction of APPEP principles?

- A) Yes
 - B) No
- 19-i)

19-ii) Please state reasons for your answer.

20-i) Have you introduced any new methods of assessment since you began working with APPEP ideas and methods?

- A) Yes
- B) No

20-i)

20-ii) If "Yes" what new methods have you introduced?

20-iii) If "No" why have you not introduced any?

21-i) Do you assess pupil progress in the wider learning outcomes listed below?
(Please indicate by writing 'A' or 'B' in the box against each).

- | | | | |
|------|-----------------------------|--------|--------------------------|
| i) | Understanding better | A) Yes | <input type="checkbox"/> |
| | | B) No | <input type="checkbox"/> |
| ii) | Developing practical skills | A) Yes | <input type="checkbox"/> |
| | | B) No | <input type="checkbox"/> |
| iii) | Observing accurately | A) Yes | <input type="checkbox"/> |
| | | B) No | <input type="checkbox"/> |
| iv) | Solving problems | A) Yes | <input type="checkbox"/> |
| | | B) No | <input type="checkbox"/> |
| v) | Taking initiative | A) Yes | <input type="checkbox"/> |
| | | B) No | <input type="checkbox"/> |
| vi) | Working in groups | A) Yes | <input type="checkbox"/> |
| | | B) No | <input type="checkbox"/> |
| vii) | Organising displays | A) Yes | <input type="checkbox"/> |
| | | B) No | <input type="checkbox"/> |

21-ii) Do you record pupil progress in the wider learning outcomes listed below. (Please indicate by writing 'A' or 'B' in the box against each).

- | | | | |
|------|-----------------------------|--------|--------------------------|
| i) | Understanding better | A) Yes | <input type="checkbox"/> |
| | | B) No | |
| ii) | Developing practical skills | A) Yes | <input type="checkbox"/> |
| | | B) No | |
| iii) | Observing accurately | A) Yes | <input type="checkbox"/> |
| | | B) No | |
| iv) | Solving problems | A) Yes | <input type="checkbox"/> |
| | | B) No | |
| v) | Taking initiative | A) Yes | <input type="checkbox"/> |
| | | B) No | |
| vi) | Working in groups | A) Yes | <input type="checkbox"/> |
| | | B) No | |
| vii) | Organising displays | A) Yes | <input type="checkbox"/> |
| | | B) No | |

21-iii) If you have been recording the progress made by your pupils in the wider learning outcomes which the APPEP intends to develop, please state how you are doing that :

22-i) Did you receive any training in assessment during the APPEP Training Course?
A) Yes
B) No

22-i)

22-ii) If "Yes" please state what this involve

22-iii) If "No" please state whether you would like such training?
A) Yes
B) No

22-iii)

APPEP Training and Implementation :

23) Now you have returned to your classroom to put APPEP principles into practice. How useful would you say the initial APPEP in-service training course was to you?

- A) Very useful
- B) Of some use
- C) Of no use

23)

24) If you have been on a three-day APPEP follow-up course, please indicate whether it has helped you in implementing the six principles?

- A) A lot
- B) Quite a lot
- C) Not at all

24)

25) Which ideas, (in accordance with APPEP principles) subject- wise have you been able to put into practice in your classroom?

i) Maths :

ii) Language :

iii) E S I :

iv) E S II :

26) How much support have you had from your colleagues in introducing the APPEP principles?

- A) A lot
- B) Adequate
- C) None

26)

27. How would you describe the support you have had from the Headteacher in applying APPEP principles in your teaching? (This question is for teachers only. Headteacher need not answer this)

- A) Very good
- B) Adequate
- C) Poor
- D) None

27)

28. How many demonstration lessons relating to APPEP principles has the MEO given at your school in the last year ?

- A) One
- B) Two
- C) Three or more
- D) None

28)

29. How would you describe the guidance given on implementing the APPEP principles by the MEO during his or her visits?

- A) Very good
- B) Adequate
- C) Poor
- D) None

29)

30. What proportion of your time do you believe should be retained for more traditional approaches under the APPEP scheme?

- A) 0%
- B) 25%
- C) 50%
- D) 75%
- E) 100%

30)

31. Have you been able to draw lesson plans which involve the APPEP principles during the past week? Please indicate for each subject.

Subject

- | | | | | |
|----|-------------|--------|-------|-------|
| 1. | Language | A) Yes | B) No | 31-1) |
| 2. | Mathematics | A) Yes | B) No | 2) |
| 3. | E.S.I | A) Yes | B) No | 3) |
| 4. | E.S.II | A) Yes | B) No | 4) |

32. How far is the Teachers' Centre from your school ?

- A) 1 km or less
- B) 2 km
- C) 3 km
- D) 4 km
- E) 5 km or more
- F) T.C. existing in the school

32)

33. Do you ever visit the homes of children who live in catchment area of the school?

- A) Yes
- B) No

33)

34. If yes, please indicate the reason or reasons : three reasons are given below, choose from them and write 'A' in the boxes against your choices. Please write 'B' if boxes remain.

- | | | | |
|------|--|-------|--------------------------|
| i. | To persuade parents to send their children to school. | 34-i) | <input type="checkbox"/> |
| ii. | To encourage the parents to send their children regularly and punctually | ii) | <input type="checkbox"/> |
| iii. | To discuss the work of individual pupils with their parents. | iii) | <input type="checkbox"/> |
| iv | To explain to the parents the need of APPEP principles and materials | iv) | <input type="checkbox"/> |

35. Do you even invite the parents of children into your classroom/school?

A) Yes

B) No

35)

36. Is the course participant's handbook available with you (Provided during APPEP training course at DIET/Mandal level)?

A) Yes

B) No

36)

37. If yes, are you able to use it for effective implementation of APPEP principles?

A) Yes

B) No

37)

38. Is the material provided for APPEP activities available to you in the school?

A) Yes

B) No

38)

39. If yes, are you able to use the material properly and effectively for the activities?

A) Yes

B) No

39)

SIGNATURE OF THE TEACHER :

NAME IN CAPITALS :

DATE :

ANDHRA PRADESH PRIMARY EDUCATION PROJECT

SCHOOL CODE	STATE	DISTRICT	MANDAL	SCHOOL
0 1				

APPEP (Not trained) School

SCHEDULE VI

(Individual Teacher Schedule)

(Questions from 1 to 17)

Instructions :

1. This schedule should be filled in by the headteacher and other teachers of APPEP - not trained school (one schedule each.)
2. To the question which is followed by given answers and which requires only one answer, please indicate your answer by writing the letter (A or B or C or D....) of your choice in the box provided against that question.

Eg. Q.1 How frequently has the M.E.O. visited your school in the last 12 months?

- A) None
- B) Once
- C) Twice
- D) Three or more times

1. B

3. To the question which is followed by given answers and which requires one or more answers, please indicate your answers by ticking (-/) in the brackets against your choices. Please also write letter 'T' in each of the boxes that correspond to the ticked brackets. Please write letter 'F' in the remaining boxes (that correspond to the unticked brackets)

E.G. Q.17 What methods of assessment do you use with your pupils?

A) Unit tests	(-/)	17-a)	T
B) Examinations (Quarterly, Half yearly etc.)	(-/)	b)	T
C) Assignments (by classwork)	()	c)	F
D) Assignments (by homework)	(-/)	d)	T
E) Oral testing	()	e)	F
F) Others	()	f)	F

4. To questions which require numbers as answers, please indicate your answer by writing the digits of the number legibly in the boxes provided

E.G. Q.11 How many times have you been able to organise the display of your pupils' work, subjectwise, during the last week?

Subject		Number of displays			
i)	Language	(if not displayed)	11-i)	0	0
ii)	Mathematics	(if displayed once)	11-ii)	0	1
iii)	E.S.I	(if displayed thrice)	11-iii)	0	3
iv)	E.S.II	(if displayed twice)	11-iv)	0	2

5. If your answer to Question 3 is, say, 30th September 1990, write it as shown here:

Answer 3

Day		Month		Year	
3	0	0	9	9	0

SCHEDULE VI

(Questions 1 to 17)

[To be filled in by Headteachers and teachers (Each one)]

Name of the teacher : _____

Name of the school : _____

Village/Town/City : _____

Mandal : _____

District : _____

Educational Support and Supervision

Academic Guidance

1. How frequently has the MEO visited your school in the previous 12 months?

A) None

B) Once

C) Twice

D) Three or more times

1.

2. How many demonstration lessons has the MEO given at your school in the last year?

A) None

B) One

C) Two

D) Three or more

2.

3. When did the MEO last inspect your school?

Date :

DAY		MONTH		YEAR	

4. How would you describe the guidance given by the MEO during his or her visits?

A) Very good

B) Adequate

C) Poor

D) None

4.

5. Please describe any follow-up action suggested by the MEO.

6. Please describe any follow-up action that you have carried out after the MEO's visits.

Teachers' Centre (T.C.)

7. Use of Teachers' Centre Meetings :

i) Have you presented any demonstration lessons at the TC ?

A) Yes

B) No

7-i)

ii) Have you attended demonstration lessons given by other teachers or head-teachers at the TC ?

A) Yes

B) No

7-ii)

iii) Have you exchanged ideas with other teachers or headteachers at the TC ?

A) Yes

B) No

7-iii)

iv) Have you displayed your pupils' work at the TC ?

A) Yes

B) No

7-iv)

8-i) Have you carried out field trips jointly with other schools at the TC ?

A) Yes

B) No

8-i)

ii) Have you made any teaching/learning aids at the TC ?

A) Never

B) Once

C) More than once

8-ii)

iii) Have you been involved in preparing institutional plans at the TC ?

- A) Yes
- B) No

8-iii)

iv) Have you prepared unit or period plans at the TC ?

- A) Never
- B) Once
- C) More than once

8-iv)

Teaching - Learning Processes

9. Please give some examples of locally available materials that you have collected at some time, during the last one year and used in the classroom during the last month ?

Materials collected

Topic & subject for which it was used

1.

2.

3.

4.

10-i) Have you organised any group activities in the last week?

- A) Yes
- B) No

10-i)

ii) If your answer to the above question is "yes", how many times, subject-wise?

Subject

Number of times

Language

Mathematics

ES I

ES II

11. How many times have you been able to organise the display of children's work in the previous week?

Subject

Number of times

Language

Mathematics

ES I

ES II

12. What educational games have you been able to organise in the last month ?

Subject	Name of the educational games
i) Language
ii) Mathematics
iii) E S I
iv) E S II

13. What local visits have you been able to undertake in the last month ?

Subject	Description of the visit
i) Language
ii) Mathematics
iii) E S I
iv) E S II

14. Have you been observing the way that children work together in groups in order to make improvements in your teaching?

- A) Yes
 B) No 14)

15. Have you been able to draw up lesson plans during the past week ?

Please indicate for each subject.

i)	Language	A) Yes	B) No	15-i)	<input type="checkbox"/>
ii)	Mathematics	A) Yes	B) No	15-ii)	<input type="checkbox"/>
iii)	E S I	A) Yes	B) No	15-iii)	<input type="checkbox"/>
iv)	E S II	A) Yes	B) No	15-iv)	<input type="checkbox"/>

16. All new methods of teaching have to overcome difficulties. Please choose upto five from the list and write letter 'T' in the boxes that correspond to the five choices; and letter 'F' in the remaining boxes. ('T' should be found only in five boxes and 'F' in each of the remaining boxes).

i)	School in remote and/or tribal area	16-i)	<input type="checkbox"/>
ii)	Few teaching resources available in school	16-ii)	<input type="checkbox"/>
iii)	Lack of suitable timetable	16-iii)	<input type="checkbox"/>
iv)	You do not speak mother tongue of pupils	16-iv)	<input type="checkbox"/>
v)	Large number of pupils in your class	16-v)	<input type="checkbox"/>
vi)	Need to cover prescribed curriculum	16-vi)	<input type="checkbox"/>

vii)	Need to prepare pupils for examinations	16-vii)	<input type="checkbox"/>
viii)	Physical characteristics and size of classroom	16-viii)	<input type="checkbox"/>
ix)	Multiple class teaching	16-ix)	<input type="checkbox"/>
x)	Classroom work disrupted by elections, census etc.	16-x)	<input type="checkbox"/>
xi)	Lack of community support for any new method of teaching	16-xi)	<input type="checkbox"/>
xii)	Lack of suitable training for teachers	16-xii)	<input type="checkbox"/>
xiii)	Length of instruction period being too short.	16-xiii)	<input type="checkbox"/>

ASSESSMENT

17. What methods of assessment do you use with your pupils ? (Please tick in the brackets against your choices and then write letter 'T' in the corresponding boxes. Please donot forget to write 'F' in each of the remaining boxes.)

a)	Unit tests	()	17 a)	<input type="checkbox"/>
b)	Examinations (Eg. Quarterly, Half yearly)	()	b)	<input type="checkbox"/>
c)	Assignments (by classwork)	()	c)	<input type="checkbox"/>
d)	Assignments (by homework)	()	d)	<input type="checkbox"/>
e)	Oral testing	()	e)	<input type="checkbox"/>
f)	Others	()	f)	<input type="checkbox"/>

Note : If you tick 'others', please indicate what they are.

SIGNATURE OF THE TEACHER :

NAME IN CAPITALS :

DATE :

SCHOOL CODE	STATE		DISTRICT		MANDAL		SCHOOL	
	0	1						

APPEP (Trained) School

SCHEDULE - VII
(Interview schedule for the Parent)

School (at which interview is held) : _____

Village/Town/City : _____

Mandal : _____

District : _____

Date of Interview :

DAY		MONTH		YEAR	

1. Name of the Interviewee : (Father/Mother/Guardian of the pupil of the school)

2. Whether male or female : (If male, write 'M' and if female write 'F' in the box provided)

2.

3. Age (please enter the number of completed years)

3.

4. Educational level (of the interviewee) (please write the letter of the right choice in the box provided)

- A) Illiterate
- B) Fifth Class or below
- C) Below Matric
- D) Matric pass
- E) Inter (passed or failed)
- F) Graduate
- G) Post Graduate

4.

5. Profession of the Interviewee : (Please write the letter of the right choice in the box provided)

- A) Farmer
- B) Agricultural Labourer
- C) Other Labourer
- D) Businessman
- E) Barber
- F) Fisherman
- G) Washerman

- H) Potter
- I) Cobbler
- J) Carpenter
- K) Weaver
- L) Employee (Govt. or private)
- M) Goldsmith
- N) Beedi worker
- O) Blacksmith
- P) Tailor
- Q) Mason
- R) Street vendor

5.

6. Community he/she belongs to (Please write the letter of the appropriate choice in the box)

- A) S.C.
- B) S.T.
- C) B.C.
- D) O.C.

6.

Note : Please record the answers of the Interviewee to the questions given below :

7. Have you visited the school during this academic year? (Please write the letter of his choice in the box)

- A) Yes
- B) No

7.

If the interviewee's answer to this question is 'Yes', two reasons why he/she visited the school :

i)

ii)

8. (If the answer to question 7 is 'Yes') How many times? (during the current academic year)

- A) Once
- B) Twice
- C) Thrice
- D) Many times

8.

9. During your visit(s) to the school, did you notice any change in the teaching method(s) adopted at the school?

- A) Yes
- B) No

9.

10. (If the answer to question 9 is 'Yes') What new things did you notice? (in brief)

i)

ii)

iii)

iv)

11. Have you noticed any change in your child's reading habits at home?

- A) Yes
- B) No

11.

12. Have you ever noticed your child counting different objects at home?

- A) Yes
- B) No

12.

13. Have you ever noticed your child collecting things like empty match boxes, match sticks, seeds, bottle tops, marbles etc., that may be available in the house or its surroundings?

- A) Yes
- B) No

13.

14. Have you noticed your child talking about writing and reading materials used in the classroom (such as sketch pens, colour pencils, colour paper, pictures, ~~etc.~~ diagrams etc.)?

- A) Yes
- B) No

14.

15. Have you noticed your child talking about things he or his classmates made and ~~displayed~~ displayed at school?

- A) Yes
- B) No

15.

16. What do you think could/should be done to gain more parental support to new method(s) of teaching in the school?

i)

ii)

17. What do you think could/should be done to encourage more and more children to go to school?

i)

ii)

18. Have you visited the school to see the work produced by your child displayed ?

A) Yes

B) No

18.

NAME OF THE INTERVIEWER :

DESIGNATION :

SIGNATURE (WITH DATE)

OF THE INTERVIEWER :

SCHOOL CODE

STATE		DISTRICT		MANDAL		SCHOOL	
0	1						

APPEP (trained) School

SCHEDULE - VIII
(Interview schedule for the pupil)

School (at which interview is held) : _____

Village/Town/City : _____

Mandal : _____

District : _____

Date of Interview :

Day		Month		Year	

1. Name of the Pupil interviewed : _____

2. Whether boy or girl (if boy, please write 'B' and if girl please write 'G' in the box provided) 2.

3. Class the pupil is in (please write 4 or 5 as necessary in the box provided) 3.

4. Community the pupil belongs to (please write the letter of the correct choice in the box provided)
A) S.C.
B) S.T.
C) B.C.
D) O.C. 4.

Note : Please record the answers of the pupil (interviewee) to the questions given below by writing the number of the right choice in the box provided.

5) In which subjects have you worked in groups during the last week? (if yes write 'A', if no write 'B' in the box against each of the following).

i)	Language	A Yes	B) No	5-i)	<input type="checkbox"/>
ii)	Mathematics	A Yes	B) No	ii)	<input type="checkbox"/>
iii)	E.S.I	A Yes	B) No	iii)	<input type="checkbox"/>
iv)	E.S.II	A Yes	B) No	iv)	<input type="checkbox"/>

6. Can you describe some of the group activities you participated in, during the last week?

i) Language :

ii) Mathematics :

iii) E.S.I :

iv) E.S.II :

7. What materials did you use in those group activities?

i) Language :

ii) Mathematics :

iii) E.S.I :

iv) E.S.II :

8. What items were you able to produce in the group activities?

i) Language :

ii) Mathematics :

iii) E.S.I :

iv) E.S.II :

9. What roles did you happen to take in any classroom activities ?

(Please tick in brackets against as many as necessary and then write the letter 'T' in the corresponding boxes. Please put 'F' in the remaining boxes.)

a)	Group leader	()	a)	<input type="checkbox"/>
b)	Reporter	()	b)	<input type="checkbox"/>
c)	Displayed material	()	c)	<input type="checkbox"/>
d)	Collected material	()	d)	<input type="checkbox"/>
e)	Participated in the preparation of material	()	e)	<input type="checkbox"/>

10) Mention any four items that you collected from the local environment.

i)

ii)

iii)

iv)

11. Have you participated in any field trips/visits during this academic year?

A) Yes

B) No

11.

12. If yes, name the places (not more than four) where you have been taken to :

i)

ii)

iii)

iv)

13. Have you produced any report on the field trip and presented it to the class?

A) Yes

B) No

13.

14. Do you find the field trips useful ?

A) Yes

B) No

14.

15. Did you participate in any educational games during the last week ?

A) Yes

B) No

15.

16. If yes, name some of them (subjectwise)

- i) Language
- ii) Mathematics
- iii) E.S.I
- iv) E.S.II

17. How many times did your parents (father or mother) visit your school during this academic year ?

- A) Once
- B) Twice
- C) Thrice
- D) Many times
- E) Not visited at all

17.

18. Do you like participating in new learning activities, and to do that, attending school regularly ?

- A) A lot
- B) Quite a lot
- C) Not much
- D) Not at all

18.

NAME OF THE INTERVIEWER :

DESIGNATION :

SIGNATURE OF THE INTERVIEWER :

DATE :

ANNEXURE - III
Proposed New Indices for Main Survey
Schedule I

The following five indices concern various resources reported by the headteacher.

1. An environment / utilities index, derived from the responses to questions 15 to 20. For this purpose only, the variables should be recorded, temporarily, as follows :

Qu.15 (garden) : a to 3, b to 2, c to 1, d to 0.

Qu.16 (playground) : a to 3, b to 2, c to 1, d to 0.

Qu.17 (light) : a to 4, b to 3, c to 2, d to 1.

Qu.18(i) (T-toilet) : a and b to 1, c and d to 0.

Qu.18(ii) (P-toilet) : a and b to 1, c and d to 0.

Qu.19 (water) : a to 4, b to 2, c to 6, d to 0 (note odd order)

Qu.20 (electricity) : a to 4, b to 2, c to 0.

This index should be constructed by adding the temporary numerical codes for these questions to give the index env-util, with a range of 0 to 22.

2. A books index, derived from the responses to question 24, parts a, c and d. This should be constructed thus :

For all three parts, a score of 0 should be recoded temporarily as 0, and a score greater than 0 as 1. Then these three scores should be added to give an index, "books", with a range of 0 to 3.

3. A Kits index derived from the responses to question 23, parts l, m and n. This should be constructed thus :

For all three parts, a score of 0 should be recoded temporarily as 0, and a score greater than 0 as 1. Then these three scores should be added to give an index, "kits", with a range of 0 to 3.

4. An educational equipment index, derived from the responses to question 23, parts a to k, and to question 25, part g (clocks). This should be derived thus :

For a (blackboard) : temporarily recode scores from 0 to 5 as 0, and scores above 5 as 1.

For c (maps), temporarily recode scores from 0 to 1 as 0, and above 1 as 1.

For all the other items (including clocks), temporarily recode a score of 0 as 0, and scores above 0 as 1.

Then these twelve scores should be added to give an index, "ed-equip", with a range of 0 to 12.

5. A furniture index, constructed from the responses to question 25, parts a to f. This should be derived thus :

For a (chairs), first construct a temporary variable Ch-rooms, by dividing the number of chairs by the total number of classrooms, of large and normal size (qu.22, parts i and ii). Then recode Ch-rooms thus : scores of 0 to 1 become 0, and scores greater than 1 becomes 1.

For b (tables), first construct a temporary variable Th-rooms, by dividing the number of tables by the total number of classrooms, of large and normal size (qu.22, parts i and ii). Then recode Th-rooms thus : scores of 0 to 1 become 0, and scores greater than 1 becomes 1.

For c (almirahs), temporarily recode scores of 0 as 0, and scores greater than 0 as 1.

For d (benches), temporarily recode scores of 0 to 5 as 0, and scores greater than 5 as 1.

For e (boxes), temporarily recode scores of 0 as 0, and scores greater than 0 as 1.

For f (stools), temporarily recode scores of 0 as 0, and scores greater than 0 as 1.

Then these six scores (using "ch-rooms" and "ta-rooms" in place of "chairs" and "tables") should be added to give an index, "furniture" with a range of 0 to 6.

From Schedule 1 and Schedule II, Part A :

1. A pupil-teacher ratio index, constructed by dividing the total pupil enrolment for 30.09.91 by the number of teachers the school has to be called PTR.

2. A crowding index, constructed by dividing the total pupil enrolment for 30.09.91 by ([the number of large classrooms multiplied by two] plus [the number of normal size classrooms]). To be called crowding.

3. A literacy index, to be constructed thus :

First, temporarily recode the male and female literacy variables so that a (literate) becomes 1, and b (illiterate) becomes 0. Then add the two scores to give a combined literacy variable, with possible scores of 0, 1, and 2.

DOCUMENTATION CLM
National Institute of Educational
Planning and Administration.
17-B, Sri Aurobindo Marg.
New Delhi-110016
EOC, No.....
Date.....

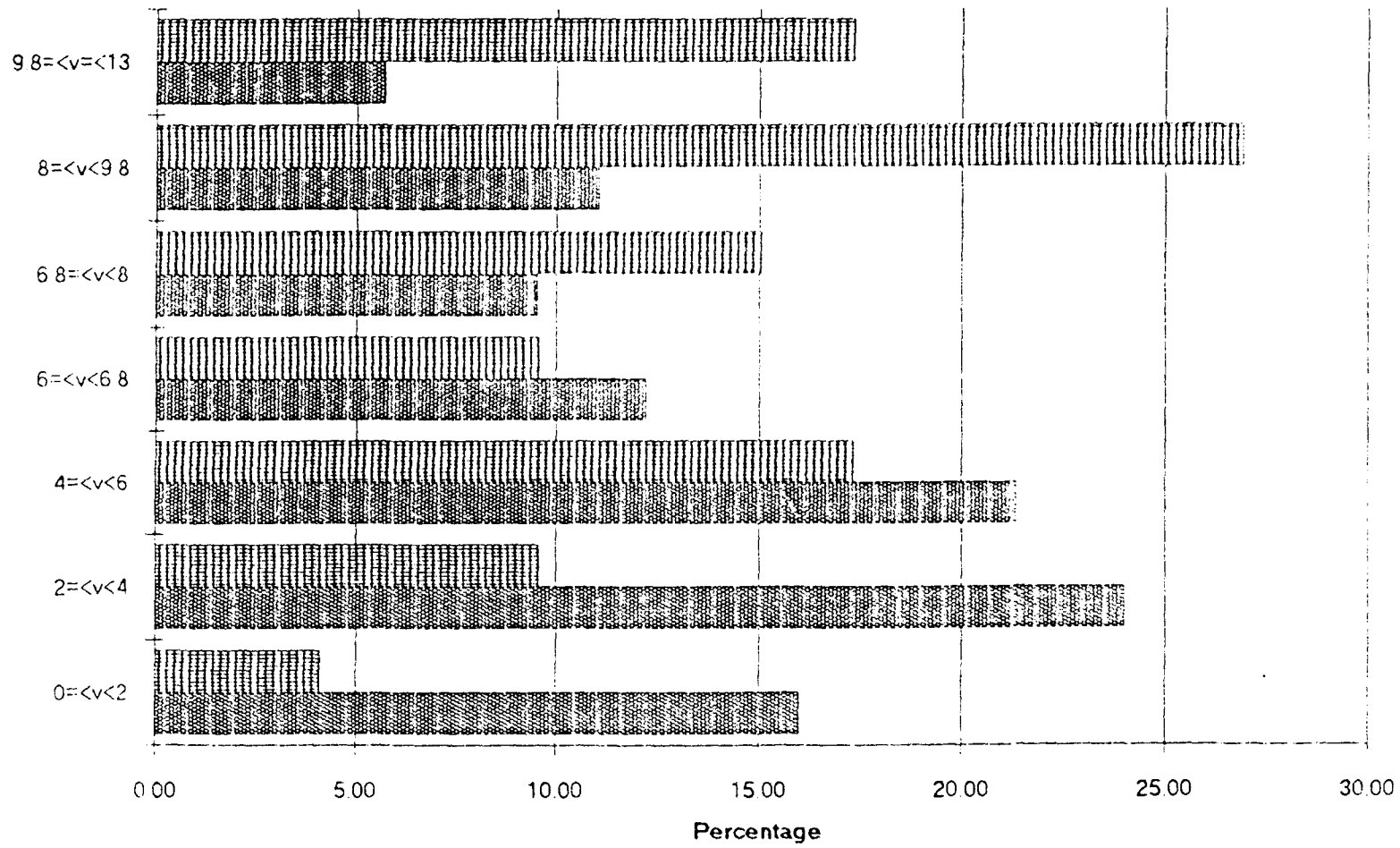
NIEPA DC



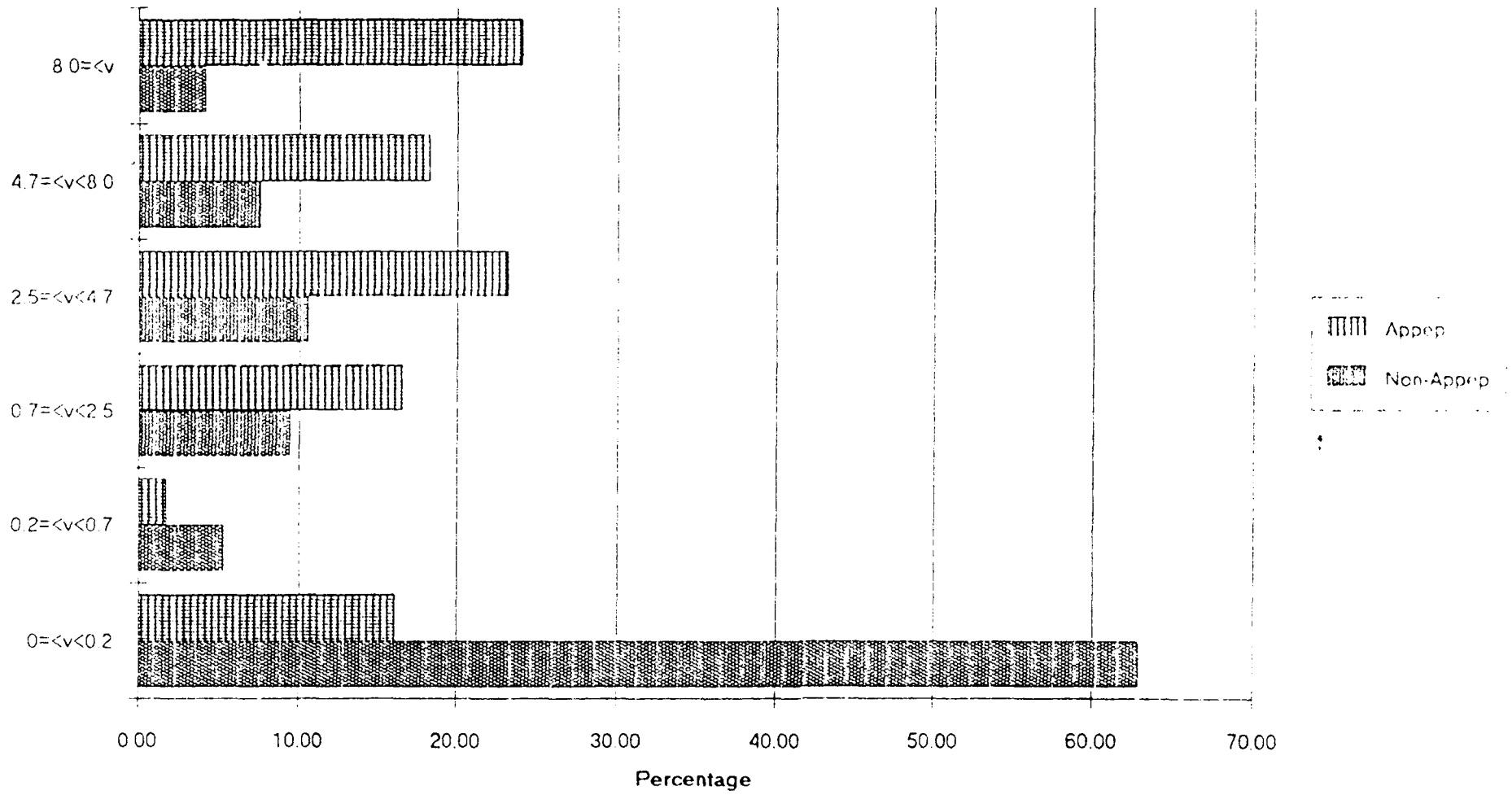
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D-9154
13-5-96

(School Level) Teachers' Centre Participation and Involvement Index: Values by Percentages Within APPEP/NON-APPEP



(School Level) Display of Children's Work Index: Values by Percentages Within APPEP/NON-APPEP



(School Level) Group Work Index: Values by Percentages Within APPEP/NON-APPEP

