CHAPTER III
METHOD OF INVESTIGATION

3.0 NATURE OF THE INVESTIGATION

The present investigation falls under the broad category of descriptive research. Descriptive research is concerned with hypothesis formulation and testing, the analysis of the relationships between non-manipulated variables and the development of generalizations. In descriptive research variables that exist or have already occurred are selected and observed. This process is described as ex post facto explanatory observational, or causal-comparative research.

Further, descriptive research reveals, What is describing, recording, analyzing and interpreting conditions that exist. It involves some type of comparison or contrast and attempts to discover relationships between existing non-manipulated variables.

In this investigation attempt is made to describe the NFE Centres in Krishna District in terms of their problems and performance. The ultimate goal is to find out the association between the problems and performance.

By virtue of the methods of research employed, this investigation is partly survey type and partly case study. The Survey is an important type of study. It requires expert and imaginative planning, careful analysis and interpretation of the data gathered and logical and skilful reporting of the findings. (John W. Best & James V. Kahn) (1988).

In evaluative case studies, a single case or multiple cases are studied in depth with the purpose of providing educational actors or decision makers with information that will help them to judge the policy merits and demerits, programmes of institutions. Case study and styles of evaluation developed in the curriculum movement and examples of such research have been reported.

To be specific, in so far as identification of different categories of problems of NFE centres is concerned, it is survey research. In so far as the assessment of performance of NFE Centres in selected projects are concerned, it is case study.
3.1 SAMPLE OF THE STUDY.

Type of data proposed to be obtained for this investigation did not involve complicated higher order sampling. It is incidental and purposive. Question of sampling arises when survey method is used for collecting problems relate to data. It is proposed to administer the NFEPI to all the instructors functioning in two NFE projects in Krishna District.

The selection of two projects in the district are due to their contiguity to the work place of the investigator. On the same basis the centers for performance and observation have been taken from the two projects, ten form each of the two projects. The variable wise sample populations are as follows.

Projects-2
- Project Officers-2.
- Supervisors-16 (8 in each project)
- Instructors of Government centers-119. Instructors of NGO centres- 83 (119+83=202)
- Instructors of urban centres-18, Instructors of Rural centres- 184(18+184=202)
- Instructors of girl centres- 55. Instructors of Co-edn. centres 147( 55+147=202)

3.2 CONSTRUCTION AND ADMINISTRATION OF THE TOOL.

Present investigation aims at identifying problems perceived by the field functionaries of NFE after an appraisal of the performance of NFE centres in Krishna District. It is also the aim of this investigation to find out the association of the problems with performance. In order to realize the above mentioned aims the following sets of data are required.

1.) Problems of NFE centres faced by the field functionaries (instructors) in the context of a) Physical facilities b) Community related problems c) Academic matters d) Organization and administration related problems, and e) Learner related problems.

2.) Performance of NFE centres related to a) Instructor b) Enrolment and retention in results. c) Accommodation and equipment, d) Supply of TLM e) Curricular and co-curricular activities f) Teaching learning process and g) Organization.
3. Verification of surveyed problems, with ground realities at selected centers. For this purpose data is verified with a) Members of the NFE Committees b) Supervisors of NFE centers c) Learners.

In order to gather data in the first set, namely problems of NFE centres, it is convenient to adopt survey research techniques. In the case of other data namely, performance appraisal and data verification, with individual cases. It is proposed to adopt case study method and techniques. In this background the investigator has to develop the following tools to gather data relevant to this investigation.

1) NFE problem Inventory (NFEPi)
2) Observation check list for performance appraisal (OCL)
3) Interview Schedules
   A) For instructors
   B) For supervisors
   C) For Education Committee members
4) Case study protocol

In the following pages an attempt is made, to describe in detail the procedures followed by the investigator in the construction, refinement, and validation of the tools. Whenever necessary scoring schemes, criteria for classification and grading the sample and such other details are also described. Such a detailed description is necessary because all the tools mentioned above are investigator made tools.

3.3 NFE PROBLEM INVENTORY (NFEPi)

This tool has been designed as an inventory here after called NFEPi. According to Vandalen (1979) Inventories are instruments that attempt to take stock of one or more aspects of an individual behaviour. Unlike tests inventories do not require subjects to perform at their maximum level. An inventory lists items related to the factor being appraised such as health practices or recreational activities and request the subjects to indicate preferences or to check items that describe their typical behavior. The researcher evaluates the responses to obtain descriptions of certain fundamental pre-dispositions of the subjects.
Inventories are used when the researcher has to identify interests, preferences and problems experienced by the sample population. When the information items are numerous and the respondents are likely to identify with few of them and it is not possible for the researcher to structure the tool model. Inventory type tools are generally used. Maximum possible items from different sources will be pooled, organized and statements or lists of descriptive phrases or words of statements prepared. Respondents will be asked to identify or choose the items appropriate to them. One can identify the likes, preferences, and problems of a sample group by analyzing statistically the group responses.

One can use inventories for different purposes in acquisition of data from other research studies. Some types of inventories gather information from the respondents just to identify the interest, problems. Certain type of inventories are used to find out the intensity of the experience of the respondents regarding the problem. In the former, one can find lists of different problems or events. But in the second instance the list of items are structured Likert type. The respondents will be asked to express the intensity of the problem by encircling or ticking against the reply in the appropriate column in the inventory.

Intensity of the problem differs from individual to individual and centre to centre. The second type of inventory is preferred by the researcher to identify the problems of NFE centres and to find out the intensity with which different respondents are facing different problems.

The NFE system in India today is a large organization supported by the Central and State Governments, involving NGO's also. Hence there is chance of meeting with problems from numerous angles. Since this investigation focuses attention on NFE centres and instructors, the problem items chosen for this tool are limited to the five areas.


The investigator draws the items of inventory from three major sources.
A few previous investigations were carried out to find out the problems of NFE, in other parts of the country. Since NFE is a nation wide programme, it is assumed that some problems might be universal in their presence. So, some problems related to the five areas mentioned above have been taken from previous research reports. Such problems in the lists are modified and incorporated in the NFE Problem Inventory can be found in table 3.1.

Secondly, the investigator as part of his job responsibility, had in the past few years, occasion to contact at close quarters field functionaries of various NFE projects in Krishna District. During these contacts several problems were brought to his notice. These constituted another source of items in the NFEPI. In this instance the problems which were often repeated and those which belong to the five problem areas mentioned earlier have not been taken into consideration. Area wise list of these problems included in the NFEPI is given below. While preparing this list, the problems which appeared in the first source have been excluded. This can be found in table 3.2.

The last important source constitutes the project officers of the NFE scheme. The project officers are administratively and functionally responsible for the NFE centres. They receive reports and complaints periodically from the center personnel. (namely, instructors, supervisors, educational committee members). This is a very significant source because, one can find area specific and localized problems. Therefore due importance is given to this source. The investigator contacted personally two project officers at Nandigama and Gudivada who pointed one problems brought to their notice by the instructors and they are scrutinized to prevent repetition. The list of problems thus selected is reported in table 3.3. The problems statements which went into the NFEPI are indicated by the NFEPI serial number in brackets at the end of the statement.

Altogether the three sources mentioned above produced ninety seven problems.

Consensus items.

The investigator prepared a consolidated list of all the ninety seven problem found in its statements drawn from the three sources appearing in table 3.1, 3.2,
<table>
<thead>
<tr>
<th>S.NO</th>
<th>INVESTIGATOR</th>
<th>PROBLEM IDENTIFIED</th>
<th>PROBLEM ITEM IN NFEPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>&quot;</td>
<td></td>
<td>There is no facility of ventilation (4).</td>
</tr>
<tr>
<td>3</td>
<td>Shakuntala.S.N. (1987)</td>
<td>The centres lacked several infrastructural facilities</td>
<td>There is no proper facility of seating for the learners(3)</td>
</tr>
<tr>
<td>4</td>
<td>&quot;</td>
<td>Lady instructors were not there in the centres to improve participation of girl children in NFE centres.</td>
<td>There are no favourable conditions for the girl children to attend the centres (15).</td>
</tr>
<tr>
<td>5</td>
<td>&quot;</td>
<td>The community participation was minimum</td>
<td>Community leaders are not encouraging the learners to attend the centres (14).</td>
</tr>
<tr>
<td>6</td>
<td>Jha.M.K.(1992)</td>
<td>The training was poor</td>
<td>Training given to the instructors is very useful in their teaching(18)</td>
</tr>
<tr>
<td>7</td>
<td>&quot;</td>
<td>The learning materials were inadequate and irregular</td>
<td>The TLM supplied is very useful (20)</td>
</tr>
<tr>
<td>8</td>
<td>&quot;</td>
<td>The honorarium of the instructors was highly satisfactory.</td>
<td>Honorarium for instructors is not satisfactory (34)</td>
</tr>
<tr>
<td>9</td>
<td>Torsten Husen &amp; T.Neville (1998)</td>
<td>The programmes themselves are frequently not conducive to attract the very poor.</td>
<td>The curriculum of NFE is not being suited to the interests of the learners(25)</td>
</tr>
<tr>
<td>10</td>
<td>Aravinda Chandra &amp; Anupamasha (1987)</td>
<td>No publicity is being done properly at right time for the NFE programmes.</td>
<td>There is no proper publicity in the village about the centre(10)</td>
</tr>
<tr>
<td>No.</td>
<td>Author (Year)</td>
<td>Statement</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>---------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Aoulkh.G.S.(1984)</td>
<td>The contents of the programme did not have the practical utility for the learners. The curriculum of NFE is not fulfilling the needs of the learners.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Aoulkh.G.S.(1984)</td>
<td>The instructional material did not provide adequate illustrations and visual elements. No low cost TLM is being prepared for teaching with illustrations.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Jha.M.K.(1992)</td>
<td>The learning materials were inadequate and irregular. The TLM supplied is very useful.</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Anupama Sha (1987)</td>
<td>The NFE untrained instructor is incompetent in the sense of acquiring knowledge of the subject and the motivational approaches. No provision is being made for instructors to undergo D.Ed/B.Ed. Training.</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Aoulkh.G.S.(1984)</td>
<td>Pre-service training facilities for NFE instructors were neither available at the District level nor at the state level.</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Dave.V.G.(1981)</td>
<td>Proper incentives should be provided to increase girl child education. No incentive is being given to the instructors for sending the learners to examination.</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Aoulkh.G.S.(1984)</td>
<td>No separate provisions are being provided for learners with poor eyesight and learning problems. No privileges are being provided to the physically handicapped learners. Many learners are suffering from ill health.</td>
<td></td>
</tr>
</tbody>
</table>
20 Sharma R.C (1984) 

In rural areas the child was an economic unit of the family, a helper in agriculture and animal husbandry and an important contributor to family income. Most of the learners have to help their families in maintenance (51).

21 Torsten Husen & T. Neville (1998) 

The very poor often cannot afford the time to participate in NFE programme. There is no much leisure time for the learners to attend the centres (60).
<table>
<thead>
<tr>
<th>S.No</th>
<th>Area</th>
<th>Item in NFEPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Physical Problems</td>
<td>There is facility to conduct work experience activities in the centres(8).</td>
</tr>
<tr>
<td>2</td>
<td>&quot;</td>
<td>There is facility of play ground in the centres(9).</td>
</tr>
<tr>
<td>3</td>
<td>Community problems</td>
<td>The employers are not encouraging the child labour to attend the centres (13).</td>
</tr>
<tr>
<td>4</td>
<td>&quot;</td>
<td>The Society has no faith in Non-Formal Education (17)</td>
</tr>
<tr>
<td>5</td>
<td>&quot;</td>
<td>The learners are being teased by elders while attending the centres(16).</td>
</tr>
<tr>
<td>6</td>
<td>Academic problems</td>
<td>NFE textbooks are not interesting with colourful pictures(27).</td>
</tr>
<tr>
<td>7</td>
<td>&quot;</td>
<td>Instructors are not able to keep learners interested all the time in the centres(32).</td>
</tr>
<tr>
<td>8</td>
<td>Administrative problems</td>
<td>Honorarium for instructors is not being received intime(35).</td>
</tr>
<tr>
<td>9</td>
<td>&quot;</td>
<td>No job security for instructors (36).</td>
</tr>
<tr>
<td>10</td>
<td>&quot;</td>
<td>Registers are being updated properly</td>
</tr>
<tr>
<td>11</td>
<td>&quot;</td>
<td>Project officer is not sensitive to the problems of instructor's (50).</td>
</tr>
<tr>
<td>12</td>
<td>&quot;</td>
<td>All registers are being maintained properly in the centre (48).</td>
</tr>
<tr>
<td>13</td>
<td>&quot;</td>
<td>Pass certificates of stage IV learners are being issued in time (46).</td>
</tr>
<tr>
<td>14</td>
<td>&quot;</td>
<td>Proper training is given to the instructors on organization of the centre(44)</td>
</tr>
<tr>
<td>15</td>
<td>Learner related problems</td>
<td>There is no encouragement from the family members to the learners to attend the centres(56).</td>
</tr>
<tr>
<td>16</td>
<td>&quot;</td>
<td>There is no leisure time for the learners to attend the centres(60)</td>
</tr>
<tr>
<td>17</td>
<td>&quot;</td>
<td>Grownups feel shy to attend the centres (61).</td>
</tr>
</tbody>
</table>
### TABLE 3.3

**LIST OF PROBLEMS POINTED OUT BY PROJECT OFFICERS**

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Area</th>
<th>Description of item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Physical Problems</td>
<td>There is no co-operation from primary school H.M(1).</td>
</tr>
<tr>
<td>2</td>
<td>&quot;</td>
<td>There is provision for proper ventilation in the centre (5)</td>
</tr>
<tr>
<td>3</td>
<td>&quot;</td>
<td>There is a facility of drinking water in the centre</td>
</tr>
<tr>
<td>4</td>
<td>&quot;</td>
<td>There is no facility for urinals in the centre</td>
</tr>
<tr>
<td>5</td>
<td>Community Problems</td>
<td>The parents are averse towards teaching of superstitions (11)</td>
</tr>
<tr>
<td>6</td>
<td>&quot;</td>
<td>There is no social access to the centres</td>
</tr>
<tr>
<td>7</td>
<td>&quot;</td>
<td>Lack of available jobs for the learners even after they have learnt new skills.</td>
</tr>
<tr>
<td>8</td>
<td>&quot;</td>
<td>The NFE centres were not located in a manner so as to be accessible to the majority of out of school children (Physical education)</td>
</tr>
<tr>
<td>9</td>
<td>&quot;</td>
<td>Some parents do not like their children to sit with children of other castes.</td>
</tr>
<tr>
<td>10</td>
<td>Academic Problems</td>
<td>All the concepts in text books of NFE can be taught in time (19).</td>
</tr>
<tr>
<td>11</td>
<td>&quot;</td>
<td>Supervisors are solving the problems of instructors regularly (21)</td>
</tr>
<tr>
<td>12</td>
<td>&quot;</td>
<td>The problems concerning teaching are being solved in the cluster meetings (22)</td>
</tr>
<tr>
<td>13</td>
<td>&quot;</td>
<td>The duration of cluster meetings is very limited (23)</td>
</tr>
<tr>
<td>14</td>
<td>&quot;</td>
<td>No discussions are being held on demonstration lessons cluster meetings (24)</td>
</tr>
<tr>
<td>15</td>
<td>&quot;</td>
<td>Demonstration lessons in cluster meetings are well organized.</td>
</tr>
<tr>
<td>16</td>
<td>&quot;</td>
<td>Display of TLM is being done in the clusters (30)</td>
</tr>
<tr>
<td>17</td>
<td>&quot;</td>
<td>Instructors are keeping the class rooms attractive (31)</td>
</tr>
<tr>
<td>18</td>
<td>&quot;</td>
<td>Teaching all the stages of children at a time is very difficult (32)</td>
</tr>
<tr>
<td>19</td>
<td>&quot;</td>
<td>The formal school certificates continues to be the essential 'Gate pass' without which access to high status jobs is nearly impossible.</td>
</tr>
<tr>
<td>20</td>
<td>&quot;</td>
<td>Participants are taught skills which are not marketable in their region</td>
</tr>
<tr>
<td>21</td>
<td>&quot;</td>
<td>There is lack of adequate needs assessment of the project area.</td>
</tr>
</tbody>
</table>
The teacher oriented methods will not work as effectively as the learner oriented methods used in NFE.

There was no link between course objectives and levels of performance.

Community needs were not properly reflected in the curriculum.
The curriculum is relevant to local environment and rural based industries.
The very poor often cannot afford the time to participate in NFE programmes.

There is no much leisure time for the learners to attend the centres (60)

Text books are being received by all the learners

Text books are being received by all the learners in time (38)

Supervisors are attentive to instructors monthly reports (47)

Registers are being updated properly (49)

Instructors were not provided guides and manuals.

Projective aids cannot be used because of lack of electricity connection to schools.

There is a need for providing materials in time

Proper system of budget provision was not emphasized.

There was no separate buildings for the centres run by the agencies.

No systematic effort was made to identify eligible children for NFE centres.

Lack of transport facilities in case of many supervisors

Even where the learning materials supplied was only for 25 subjects.

The importance of education is being recognized by the parents of the learners (54)

The parents showing interest on girl child education (55)

Self confidence developed among the learners towards learning education(57)

Learners are moving freely with the peer group(58)

Parents are properly motivating the learners(59)
Lack of motivation when the participants fail to see an immediate application of their learning in their daily lives.

Lack of available jobs for landless rural people even when they have learnt new skills.

The NFE centres were not located in a manner so as to be accessible to the majority of out of school children (Physical education)
&3.3 above. Multiple copies of this consolidated list were got Xeroxed. Ten such copies were distributed among five senior NFE instructors, three supervisors, and two project officers. They were asked to mark the problems which in their opinion were most wide spread and very important in terms of effective performance of NFE centers. Responses from these ten NFE personnel revealed that there was a unanimous agreement on 61 items. These consensus items ultimately went in to the construction of the tool of present investigation, namely NFEPI.

3.4. THE STRUCTURE OF NFEPI

The NFEPI is designed to identify problems perceived by NFE instructors. The NFEPI consists two parts A & B. Part – A enquires about bio-data (namely, name, sex, caste, age, qualifications, experience) of the instructor and the status of the center (village /type of center). This is intended to get the data about variables of the study. An appeal to instructors precedes Part-B.

Part-B NFEPI consists of 61 problem items under five areas. The problems are stated Likert type since the respondent is expected to indicate the intensity with which the problem is felt also. The NFEPI is intended to identify problems in terms of prevalence and intensity. Data required for analysis and interpretation therefore doesn’t require individual respondent scores. This is one reason for the investigator prefered for inventory.

3.6. ADMINISTRATION OF THE NFEPI

The investigator has picked the sample from the NFE instructors, i.e., field functionaries, parents, and learners of two selected projects in Krishna District namely, Gudivada and Nandigama. Each project consists 120 NFE Centres (90 co-education, + 10 Girl centres + 20 phase II centres). Further, some Non-Governmental Organization centres have also been included for the investigation from these projects. By following cluster and random sample techniques, the researcher selected 280 centres to administer the tool. The geographical location of the Krishna District in A.P. and the projects in Krishna District are shown in two maps. They can be seen in Appendix. E & F. The distribution of the sample is shown in fig3.1.
The NFEPI was to be administered to NFE Instructors. To administer the tool, permission was obtained earlier from the project officers concerned, and administered the NFEPI in cluster meetings on 2nd and 3rd of March '99 in the two project areas. As most of the instructors were only high school graduates, the NFEPI was originally prepared in regional language (i.e. Telugu) and administered to the sample. Of the 280 NFEPI forms only 250 forms were returned with complete responses. In 250, forty-eight inventories were taken at random for item analysis. The 61 items in the NFEPI were tested for discriminatory power. Chi-square (X²) were calculated. The researcher retained the item when its X² value was above 5.991, (Significant at 0.05 level). If the value of the item was below 5.991 it was deleted for final study. Thus 17 items were deleted in five different areas of NFEPI and finally 44 items were considered for final form and analysis. The original NFEPI in the regional language and its English version are appended in Appendix-G and H respectively. The items, which did not satisfy discriminate validity and hence were ignored for final analysis of data, which have been shown in the NFEPI (Appendix-G and H) with asterik marks.
3.6 RELIABILITY AND VALIDITY OF NFEPI.

A tool which does not yield respondent score values is not amendable keeping up to reliability and validity in the ordinary sense of the terms. In such cases psychometrecians like Campbell and Miller (1954) say that inferences from group differences should be shown as reliable and valid, if group differences were found statistically significant. In the research report, this will be established at the stage of analysis and data interpretation.

However, as explained in the above paragraph the items in the tool have carefully been picked from the previous researches and actual problems of NFE instructors. Thus an attempt is made to give face validity and construct validity to the tool to the maximum extent possible.

Consensual validity (or) expert validity is often considered not satisfactory in developing measures of psychological variables like traits and attitudes. Simply because there is a marked lack of consensus among experts regarding the meaning of the words used and the appropriateness of inferring a person's position and any given trait and such like items are usually deleted from particular types of assessment data. Contrary to this general opinion, this investigation takes a stand on the appropriateness of consensual validity, in this specific case, validity of the NFEPI, because of the following reasons.

1. This tool doesn't involve ambiguous concepts.
2. The five problem areas of the NFEPI are also not controversial. They are the areas usually considered for programme /Project evaluation.
3. The Judges whose opinion has been sought on the original list of problem statement are closely involved with NFE projects, namely, the project officers, the supervisor, and senior instructors.
4. Only such problem statements on which there was unanimity of Judgement have been retained in the final NFEPI form.

As pointed out earlier in this chapter, to establish reliability of tool, which does not yield individual respondent scores is not statistically possible. However an attempt
was made in the broad sense of the term reliability. In this sense the homogeneity of the item frequencies with reference to some other relevant measurement is desirable (Kelley, 1969).

In this investigation the case study approach has been followed at a later stage. It is proposed to study the performance of twenty NFE centres with the help of Observation Check List (OCL) and Interview Schedules. Data at this stage throws light on problems of NFE centres as perceived by the instructors of the selected centres. There ought to be broad similarity in the problems identified through NFEPI and problems brought to light during the interviews with instructors. There is such homogeneity as can be found in the next chapter on analysis and Interpretation of data (i.e. chapter-IV).

3.1: CASE STUDY INSTRUMENTS

The checklist, the simplest of the devices, is a prepared list of items. The presence or absence of the item may be indicated by denoting 'Yes' or 'No' and the type or number of items may be indicated by inserting the appropriate word or number.

OBSERVATION CHECK LIST (OCL).

The observation check list, which was developed by the investigator, serves to measure the performance of the NFE centres. This checklist consisted of two parts A and B. Each part has its own significance in measuring the performance of the NFE centre.

Part-A inquires the bio-data of the instructor of the NFE centre. Educational qualifications and experience play a vital role in the effective teaching learning process. According to the norms issued by the Government of Andhra Pradesh, the instructors must possess qualification of X class to the Phase I and Intermediate qualification to the Phase II NFE centres. Further, it is also mentioned that, the instructor should be a local person preferably.

If the Instructor is a local person, he can concentrate on his job. He can also motivate the learners to join in the NFE centre to start or to continue their education. A local is better suited to this responsibility than a non-local instructor (As per

The results of the previous batch show the academic performance of the centre. Number of admissions of NFE learners in formal schools show the capability of the instructor as well as the effective performance of the centres. All these items in the checklist indirectly show their impact on the performance of the centre. Hence, these items have been included in the checklist.

Part- B has 14 items, which separately and integratedly influence the performance of the centres. These items cover both the process and product factors that help in appraising the performance of NFE centres.

As per the admission policy, the children to be admitted to NFE centres should be between the age of 9-14 years. They should be either dropouts of formal schools or working children or non-starters. A centre should have a minimum of 25 children. Under aged children should not be admitted. No child attending the formal school should be allowed to attend these centres.

According to the norms of the Government, the NFE centres shall work for at least a minimum period of 275 days at the rate of 2 hours 15 minutes per day in a calendar year. (G.O cited in above reference). Thus, if the average attendance in the centres is above 75% it shows the good performance of the centre. Hence this item is included in OCL, which is appended in 'Appendix – I'.

According to the norms of NCERT (March 1983) New Delhi
1. The centre must be opened in that locality where maximum number of NFE learners reside because after doing hard work the children may avoid covering a long distance. So they don’t enroll or they absent frequently.
2. Less the distance between the residence of children and the centre, the more number of students attending it regularly.
3. Panchayat house, Dharmasala, and School building can also be used provided they are not far from the residence of children and they are ready to come here.
If the centre has all the needed requirements, it attracts more non-starters or dropouts to the centres. Hence, the item accommodation and equipment has been incorporated in the checklist to know the fulfillment of the above condition.

Of the material needed for starting a centre, a few already available in the community may be used. Items given to the teacher, for starting a centre as per the norms of NCERT in the book, teachers guide to NFE Programme are as follows:

2. Slates, pencils.  
4. Chalk.  
5. Duster.  
6. Registers.  
7. Sitting mattresses.  
8. Lamps.  
10. Pitcher... etc.

Any from these things the teacher may try to seek help from local resources. As the centre grows, it will receive more things eg. Playing material etc. The NFE Instructors should maintain the following registers upto date and keep them in the centre. (As per G.O.R.c No.2371, dt 21-9-1995 of the Govt. of A.P.).

1. Admission Register.  
2. Pupils Attendance Register.  
3. Progress Register.  
4. Stock Register.  
5. Progress chart.  
7. Survey Register.  
8. Sign board of NFE centre.

As required if instructions given in the G.O. mighty followed centres have to maintain all registers upto date, showing the good performance. Procuring local resources indicates the efficiency of the instructor indicating proper organization and administration of the centre. By establishing contacts with people, the instructors will get much interest in this type of education and the general environment for establishing the centre will be created. Contacts and motivation also play a key role in the performance. So this item in also incorporated in the OCL.

As per instructions given in the G.O. the instructors should also be advised about, arranging field trips. Hence, in OCL; extra curricular activities item was also
incorporated. But there is not set number of activities in G.O. If they are organized, even once, maximum marks may be given. As per the guidelines given in the 'Instruction Booklet' to NFE Instructor, published by DIET, Krishna, A.P.

- The Project officer or supervisor of NFE should visit and inspect the NFE centre twice in a month:
- Identify the mistakes in teaching of instructors.
- Suggestions for improving quality of teaching.
- Demonstrates the maintenance of registers.
- Establishes the NFE Committee and makes them work.
- Establishes NFE centres in primary schools.
- Helps in evaluation of programmes in NFE centres.
- Mobilizes community to run the NFE centres properly.

As indicted above, if the supervisory staff oversee the centres, it makes the instructors alert empowering them with competency to improve the quality in their teaching leads to good performance of the centre. Hence, all these item are included in the observation check list to measure the performance of the NFE centres.

WEIGHTAGES TO ITEMS AND PERFORMANCE GRADING.

For quantitative analysis of the data obtained form the observation checklist weightages, the relative importance of these items to the realization of the goals of NFE as indicated in the documents has been taken into consideration. The items in the observation checklist, the weightages given to the observed items and criteria for classification of observed NFE centres in terms of performance level are described in the following pages.

The scoring of the checklist is as follows:

Part – A in OCL is about instructor’s bio-data. Item I (A) and I(B) are the status of the center. For Item I(C), 1 and 2 scores are given for high school graduate and above respectively. High score is given to higher qualification if the instructor possess as more ability and suitability.

For the item I (D) (i.e. Experience), high marks (i.e. '3') are given to those who are more than 10 years of experience, medium score-2 is given to 5-10 years of experience and '1' is given to below 5 years or less of experience. For item I (E)
and 2 scores are given to non-local and local residents. To item I (F), the high results (i.e. 75% and above) in previous batch is given '3', above 50% but less than 75% of results is '2' and to below 60% '1' is given. Level of achievement is the criteria to higher percentage of results in previous batch. Here achievement means not only getting more results in examinations, but also make the pupils admit in the formal stream. If the admissions into formal schools are more than one (i.e. 50% total strength and above) the score '3' is given, if the percentage is between 25-50 the score '2' is given and 25 or below '1' is given.

The items in part-B are scored as given here under:

For item-3 (Enrolment) if the enrolment in school age population is 50% and above the score '2' is given, to below 50% score '1' is given, if there is not enrolment 'Zero' score is given, because high enrolment is due to good performance of the instructor. For average attendance (item-4) score given is 3, to 75 % and above, score 2 is given to 50-75 % and score -1 to below 50% is given, because high percentage of attendance shows a good performance of the instructor and effective functioning of the centre.

For the item 5 , score 3 is given for hundred percent appearances for the examination of those who were admitted in the centre. Maximum score for each batch is '12'. If the centre attains full score it means effective performance of the centre. Therefore, score '3' is given to for total number sitting for examinations. Item 6 (a) is scored with '10' as maximum. If the centre has satisfactory accommodation as required by the authorities it gets a score of 10.

Regarding the item 6(b) the maximum score is '5' if the teaching learning materials are supplied in adequate quantity and used frequently high score is given because the impact of these items on the level of achievement is very high. If the centre gets full score of '5' it means the performance of the centre is good and effective.
Teaching learning process depends on the Teaching-learning material (TLM) supplied by the Government or management. In Item 7. (TLM supplied to the centres) the maximum score of '18' is given to 'number supplied' and '12' to 'supplied in time' is given.

Supply of all materials in time plays a key role in the performance of the centre. If the centre gets full score to each one, it shows good performance of the centre.

The item regarding curriculum 8 (A) score 22 for completion of all units in all the 11 subjects 22 is given for 'satisfactory completion'. Only score 11 is given to each if it is incomplete and unsatisfactory. If it received maximum score it indicates a good performance.

Item 8(B) concerns organization of co-curricular activities. A centre with majority of the pupils participating in majority of the activities would receive a maximum score '6' (3+3). If it attains maximum score, means that the centre's performance is good. For the item 8 (C) the maximum score '2' is given for organization of at least one field trip, if the centre does not organize the field trips the score '0' will be given. Item (9) is related to the instructional techniques adopted by the instructor. If the techniques indicated in the hand book are used by the instructors during observation the centre gets score 10, indicating the effective functioning of the centre as well as the good performance of the instructor. If the score is below '5' it indicates the poor performance of the centre.

For the item 10 (Maintenance of Registers) the maximum score '3' is given for good maintenance i.e. upto date of all registers. If it is below '3' it indicates poor maintenance of registers.

For the item (11) the maximum score '2' means the centre has better community involvement as in good performance.

For the item 12 (Preparation of progress reports of learners) the score '2' for up to date preparation. If reports of all learners are not ready or not up to date, score given is '1'. Zero is not given because some work will have been turned out any how.

Item 13 relates to motivational activities. These are activities like Jatas, rallies, door to door canvassing etc., organized by the personnel of the centre along
with NFE Committees and local youth. If the activities are being organized regularly the score given is '4'. It shows that performance of the centre is good. If no motivational activity was undertaken or one or two in a year the performance of centre was not good.

Item 14 is related to 'Project organization' 14 (1) is regarding 'supervision'. It gets a maximum score of 9. If the centre attains maximum score it indicates proper supervision is being done regularly. It means the performance of the centre is good.

For the item 14(2) and (3) the score given is '3' for frequent visits and score '1' for no visit. If the centre gets maximum score, it indicates proper encouragement is being given.

For item 14(4) if NFE Committee meetings are being held regularly the maximum score given is '2'. It reveals proper organization and good performance is being done in the centre.

OBSERVATION PROCEDURE.

The investigator himself visited twenty case study centres. The centres are selected at random from Government and Non-Governmental agencies. The researcher personally obtained the information through the OCL, from the documents and records, and by talking to instructors whenever necessary. The check list for each item was filled immediately. Each and every item had been categorized by following the criteria explained above and also shown below in tabular form:

<table>
<thead>
<tr>
<th>Item – 1 (part- A) (Instructor’s Bio-Data)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum weightage</td>
</tr>
<tr>
<td>Performance category:</td>
</tr>
<tr>
<td>Good</td>
</tr>
<tr>
<td>Satisfactory</td>
</tr>
<tr>
<td>Not –satisfactory</td>
</tr>
</tbody>
</table>
Item – 3 (part -B) (Enrolment)

Maximum weightage : 32
Performance category :
  Good : 20 - 32
  Satisfactory : 10 - 20
  Un-satisfactory: < 10

Item – 4 (Average attendance)

Maximum weightage : 18
Performance category :
  Good : 15 - 18
  Satisfactory : 9 - 15
  Un-satisfactory: < 9

Item – 5 (Admissions & No. appeared for examinations)

Maximum weightage : 36
Performance category :
  Good : 27 - 36
  Satisfactory : 18 - 27
  Un-satisfactory: < 18

Item – 6 (Accommodation & Equipment)

Maximum weightage : 15
Performance category :
  Good : 12 - 15
  Satisfactory : 8 - 12
  Un-satisfactory: < 8

Item – 7(a) (TLM supplied to the centre)

Maximum weightage : 18
Performance category :
  Good : 15 - 18
  Satisfactory : 9 - 15
  Un-satisfactory: < 9
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Maximum Weightage</th>
<th>Performance Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 (b)</td>
<td>TLM Supply in time</td>
<td>12</td>
<td>Good: 9-12, Satisfactory: 6-9, Un-satisfactory: &lt; 6</td>
</tr>
<tr>
<td>8 (a)</td>
<td>Curriculum: (a+b+c)</td>
<td>30</td>
<td>Good: 23-30, Satisfactory: 15-23, Un-satisfactory: &lt; 15</td>
</tr>
<tr>
<td>8 (b)</td>
<td>Completion of curriculum with satisfaction</td>
<td>22</td>
<td>Good: 17-22, Satisfactory: 11-17, Un-satisfactory: &lt; 11</td>
</tr>
<tr>
<td>9</td>
<td>Institution/Teaching Learning process</td>
<td>10</td>
<td>Good: 8-10, Satisfactory: 5-8, Un-satisfactory: &lt; 5</td>
</tr>
<tr>
<td>10</td>
<td>Maintenance of Registers</td>
<td>3</td>
<td>Good: 3, Satisfactory: 2, Un-satisfactory: &lt; 1</td>
</tr>
</tbody>
</table>

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Item – 11 (Local Resources procured)

Maximum weightage : 2
Performance category :

  Good : 2
  Satisfactory : 1
  Un-satisfactory : 0

Item – 12 (Progress Report)

Maximum weightage : 2
Performance category :

  Good : 2
  Satisfactory : 1
  Un-satisfactory : 0

Item – 13 (Motivational Activities)

Maximum weightage : 4
Performance category :

  Good : 4
  Satisfactory : 3
  Un-satisfactory : < 3

Item – 14 (Project organization)

Maximum weightage : 17
Performance category :

  Good : 12 - 17
  Satisfactory : 8 - 12
  Un-satisfactory : < 8

INTERVIEW SCHEDULES

Interviews can take several forms, ranging from very informal exchanges to very structured, ordered sets of questions. The form one can select depending upon the nature of research, the subject, the kinds of information needed, the setting of
research and the characteristics of the people to whom the investigator is talking says Eilene Kane (1991).

Here structured type of interview is followed on the assumption that it may take different questions which yield different answers, in order to confirm information which one can get through OCL. These questions may be put in different orders, to get the same information from different people. The investigator proceeds with any approach which is useful to convey to the interviewee the sense and meaning of what he wants.

The followings are the case study questions

1. What is the level of performance of NFE centres taken up for case study?
2. If the performance is satisfactory what are the plus points of the centres? If the performance is not satisfactory what are the weak of the centres?

To answer the first question, OCL has been prepared. To get data concerning the second question mentioned above, it is proposed to make use of the interview technique. For this purpose the investigator prepared three different interview schedules to collect data through interviews from three different sources. The three sources are the three categories of persons involved in the organization of the NFE centres. These interviews are structured. Interview queries are open-ended. This technique allows flexibility for supplementary queries whenever and wherever necessary. A brief description of an interview schedule is given below.

For example twelve questions are framed to interview the learners of NFE centres selected for case study. 200 learners from 20 NFE centres are interviewed. A sample question is given here from the schedule.

Is the NFE centre convenient for you to attend regularly?

If the answer is 'Yes' no supplementary question will be put to get reliable information. If the answer is 'No' some supplementary questions will also be put to get reliable information. Such questions are,

Why do you think so?
Where do you want to go for study?
Do your parent allow you to attend the centre?
Aren't there any interesting activities to you.
Isn't the instructor kind to you is it?
Is the centre far from your house.?
Are the timings inconvenient to you.?

These supplementary questions yield information, which can confirm the data obtained through OCL. They may also yield information about the causes of the problems. The same process is followed in designing the rest of two schedules, one for NFE Committee member (80) and another for supervisors of NFE centres (16).

The schedules can be seen in appendix J of this report. The interview data has been processed through frequencies of responses for each interview question. Usual techniques of tabulation and percentages have been used for presentation of the data and for comparison and cross checking observation data and with data obtained through NFEPI.

3.8: CASE STUDY PROTOCOL

Purpose

It is presumed that through some problems of NFE may be Universal (as found out in the survey), there may be many others which are incidental to the institutions (NFE centres) and instructors. These may also be related to the organizational linkages. The causes of problems can better be observed at the ground level along with the performance of NFE centres. Hence,

-to have corroborative evidence for the problems,
-to identify other problems if any,
-to assess the performance of NFE centres,
-to find out the associations between problems and performance,

Case studies of 20 NFE centres have been prepared, analyzed and reported.

What is the availability and utilization of essential teaching learning materials.?
What is the level of performance of centres with reference to enrolment, retention, and achievement of learners.?
What is the nature of inter relation –ship among field functionaries at different levels of NFE project organization.

What are the problems experienced by the functionaries.?

What are the causes.?

What is the level of performance of the NFE centres with reference to physical facilities and organizational functions.?

Do the field functionaries play their roles at the expected level.?

How do urban centres compare with rural centres in terms of problems, causes and performance.?

How do Government, and NGO centres compare.?

Is there any association between problems and performance.?

3.9 FIELD PROCEDURES

A) Design & Data collection

The multiple case design and multiple sources of evidence for data collection are used. The multiple case study design allows for replication logic in analysis and generalization according to Eckstein, H.

The use of multiple sources of evidence in case studies has the advantage to address a broad range of attitudinal and behavioral issues. Further, it allows the development of converging lines of inquiry, a process of triangulation, both in data sources and methods as Patton says, field observation and person to person interview methods will be used to elicit data from cases.

Data collection sources shown in table 3.4

3.10 MAJOR TASKS CASE STUDY DATA COLLECTION.

- Identification of NFE projects & centres and key persons. (informers)
- Preparation of tools of data collection viz observation check list, interview schedules.
- Gaining access to organizations and interviewees
- Scheduling the data collection activities
- Providing for unanticipated changes in the schedules.
<table>
<thead>
<tr>
<th>Cases</th>
<th>Nature of data</th>
<th>Methods of data Collection</th>
<th>Tools for data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizations</td>
<td>Functional efficiency</td>
<td>Observation of Place and records, Official documents (Gos., statistical tables ... etc)</td>
<td>Observation Checklist Evaluation sheets</td>
</tr>
<tr>
<td>NFE Projects</td>
<td>Material Resources</td>
<td>Available at different levels of NFE organization in the State accommodation and equipment at the centres</td>
<td>Documentary Analysis</td>
</tr>
<tr>
<td>NFE centres Management a)</td>
<td>Problems and types</td>
<td>Interviews with learners, Instructors, Supervisors, Project Officers, Parents of learners</td>
<td>Observation checklist (OCL) Interview Schedules</td>
</tr>
<tr>
<td>Urban</td>
<td>Interaction between Levels of organization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>Later personal relationships perception</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individuals (Field functionaries, Project Officers, Supervisors, Instructors Learners and their parent members of the NFE Committee)</td>
<td>Problems of by personnel causes of the problems perceived by field functionaries. (Behaviour-attitudes-perceptions)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3.4

DESIGN VERUS DATA
(Data Collection Sources)
NARRATIVE FORMAT.

a) Report on data converging on categories of problems experienced by field functionaries. It also contains performance of their centres and their causes.
b) Emerging patterns for effective functioning of NFE centres.

3.11 STATISTICAL METHODS AND TECHNIQUES USED FOR ANALYSIS AND INTERPRETATION OF DATA.

The following research techniques and information process approaches will be used for consolidation and interpretation of data.

1. Item analysis will be applied for perfecting the NFEPI.
2. Simple mathematical procedures like percentages and means may be used for preparation of basic data.
3. ‘$X^2$’ (chi-square) test of independence will be used to establish association of the variables with reference to problem areas.
4. Convergence logic will be applied for interpreting case study data.