Chapter: 4

Research Design

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CHAPTER: 4
RESEARCH DESIGN

4.0.0 INTRODUCTION:

Review of past studies that has taken place was discussed in the previous chapter. Thereafter different studies were evaluated in the light of similarities and contradictions in findings of past studies and workout research gaps too.

This chapter deals with the origin of the problem, population and sample, development of tools for data collection, methods of data analysis and experiences experienced by the investigator during data collection.

4.1.0 ORIGIN OF PROBLEM:

Pursuant to the provisions of NPE on teacher education, a centrally sponsored scheme of restructuring of teacher education was taken up during the VIIth plan period and was approved in Oct. 1987. One of the most important components of the scheme was establishment of DIETs. The draft guideline for this component was prepared through Educational Consultant India Limited (Ed. cil), which was further modified by the MHRD and the instructions in the form of guideline about the implementation of basic components of DIETs were given to the state Government in Oct 1987. Thus the financial and other supports by the central Government were approved under the scheme to establish 216 DIETs all over the country till Oct 1989.

The Government of Gujarat had taken a policy decision to establish DIETs at the district level as per the norms laid down by the Government of India.
Accordingly in the first step the State Institute of Education (SIE) was upgraded to Gujarat Council of Educational Research and Training (GCERT) in Jan 1990, which is committed to strive for bringing about qualitative improvement in the school education.

After the upgrading of the SIE, in the year 1991 in the first phase 7 DIETs were sanctioned by Government of India in Gujarat and gradually other DIETs were established in all the districts of Gujarat. At present 26 DIETs are functioning in the state.

As the DIETs are expected to work as a mission and have a very important pave setting role to play, required number of staff and facilities are made available in each DIET for its effective function but it is likely to have some problem and difficulties faced by the DIET faculty while performing their role concerning the facilities available, role perception and job satisfaction, therefore it becomes necessary to diagnose these aspects of DIETs to have a complete picture of current requirements and future projection, which will be helpful for the Government and related authority to make DIETs more fruitful.

DIETs were also required to successfully implement the idea of decentralized planning and management of education. DIETs were proposed with the idea that they would radically transform the present system of elementary education. MHRD (Department of Education) has published general guidelines for the various aspects of DIETs including their infrastructure, staffing pattern and administrative set up etc. As the concept of DIET has not been too old and adequate studies have not been done on the working of this institute, it is important that detailed studies may be conducted time to time so that, the step for achieving institutional
effectiveness can be undertaken well in time. Such feedbacks are necessary for achieving the ultimate goal of the establishment of DIET.

As it was stated earlier that, the DIETs were expected to work as a mission and become model of excellence for other educational institutes in the district in terms of meticulous, efficient and effective planning and execution of function as well as harmonious and creative organizational climate for improvement of teacher education system. As DIETs were working since 1991, they might be facing various issues related to the resources and facilities available to DIETs, their functioning as well as role perception and job satisfaction of the faculties, are needed to be looked into. Therefore, it was necessary to diagnose these aspects of DIETs. Considering this view, this study was taken up by the investigator taking into consideration the following aspects:

- There may be some problems and difficulties faced by the faculty while performing their role, so suggestions may be provided for the solution.
- A complete picture of all the DIETs of the state are required for the current requirements and future projection in terms of manpower, institutional infrastructure and other professional support system for strengthening of DIETs.
- Planned and coordinated development of teacher education is an urgent need of today and future as well as quality of teacher education requires to be upgraded. Therefore it is required to have knowledge about the programmes organized by DIETs.

4.2.0 POPULATION AND SAMPLE:

As per the guideline prepared by the MHRD initially total 216 DIETs were established all over the country out of which 7 were established in Gujarat. Periodically the number of DIETs was increased both at state and
national level. Presently there are total number of 448 DIETs which are functioning at national level out of which 26 DIETs are in Gujarat.

At the time of proposal of this study there were 19 DIETs functioning in Gujarat, while 7 DIETs were established after the proposal of the study.

It is a case study type research, to cover all the DIETs, population was selected as a sample. Different aspects of DIETs were to be studied, in such case it was useless to select few DIETs by sampling.

Hence the population becomes the sample. So there was no requirement of using sampling technique. In present study all the 26 DIETs of Gujarat were selected for study.

4.3.0 PREPARATION OF TOOLS:

This study is survey as well as case study type. It was decided to study present facilities, its usability and prepare suggestions for smooth running of DIETs. In such situation, Data form, questionnaire and interview schedule were found best tools for data collection. Apart from these tools for the cross validation of data documents prepared by DIETs say, annual administrative reports, Teacher Education Resource Group (TERG) report etc., were also used.

Following procedure was followed to construct required tools.

4.3.1 DATA SHEET CUM QUESTIONNAIRE FOR DIET:

For preparation of this data sheet cum questionnaire the investigator has gone through the DIET guideline, tools prepared by Rajasthan University for study of DIETs with respect to Educational Technology and the data collection guideline prepared by GCERT for case study of the DIET. This data sheet cum questionnaire was mainly
consisting of the physical infrastructural facilities of the DIET. It also consist the information regarding the different rooms like science laboratory, language room, audio video room, seminar room, computer laboratory, indoor games room, social studies and civic room, library, hostel etc. The respondent has to provide required information in term of (1) Availability of the facilities (2) Usability of the facilities.

After using all above aspect data sheet cum questionnaire was prepared. This data sheet cum questionnaire contained following major aspects.

<table>
<thead>
<tr>
<th>Aspects:</th>
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</thead>
<tbody>
<tr>
<td>1 General Information about DIET and DISTRICT:</td>
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<tr>
<td>This section contained general information about district like, number of blocks; number of clusters, number of schools; land and construction are of DIET, information of academic staff.</td>
</tr>
<tr>
<td>2 Information about Physical Infrastructure:</td>
</tr>
<tr>
<td>This section contained the information about the different infrastructural facilities available in DIETs and their usability, like different rooms, hostel, seminar room, various</td>
</tr>
<tr>
<td>3 Information about special need student:</td>
</tr>
<tr>
<td>This section contained the facilities available in the DIETs about the students with special need and their usability.</td>
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</tbody>
</table>
4 Information about non formal and adult education:

This section contained the information regarding the different instruments and facilities required for the Non

5 Information about Hostel:

In this section of data sheet cum questionnaire contained different facilities available in the hostel like, sanitation,

6 Grant rating scale:

In this section opinions were asked about the different types of financial assistance given to DIETs in terms of their availability that whether they were sufficient, in-sufficient or

7 Information about different financial assistance:

This section of data sheet cum questionnaire contained the information about the different financial assistance received by the DIETs in different years.

8 Information about different Training Programme:

This section contained the information about the different types of in-service training programmes conducted by DIETs in different years.

9 Information about Human resources (DIET faculties):

Information regarding name, subject, educational and professional qualifications etc. about the DIET faculties
Information about Human resources (training experts):

Information regarding name, subject, educational and professional qualifications etc., about the training experts visiting the DIETs were contained in this section.

The first draft of the questionnaire was then sent to the subject experts of the different Universities and principals of different DIETs requesting for the suggestions and modifications if there are any. After receiving and collecting the suggestions they were classified according to the different aspect of data sheet cum questionnaire they were as follows:

- **Aspect and Regarding Suggestions:**

  **Physical Infrastructure:**
  - Clear instructions should be there instead of only signs.
  - There should be more space in the block of usability and remarks.
  - No need of space is require for the data of land of DIET.
  - Number of different rooms should be under the heading of physical infrastructure only.
  - More rigid structure of questionnaire.
  - In usability instead of *frequently* there should be *Many Times*.
  - In the usability the word *never* should be think over.
  - More indoor games should be mentioned.
  - Instead of *physically handicapped* other word should be thought over.
Grant Rating Scale

- Instead of *grant rating scale* its local Gujarat word should be there.
- Instead of partially sufficient, more than sufficient word should be used.
- Financial assistance received from the other agencies like DPEP and SSAM should be considered:

Training Programme:

- Time duration of training programme has to be taken in to consideration.
- More space regarding number of training programmes in different years should be added
- Training programmes conducted by DIETs with co-ordination with DPEP and SSAM has to be included.

DIET Faculty information:

- Research title of numbers must be clarified.
- Clarification about numbers of training programmes or types of training programmes should be made.
- In block of received training there should be *trainees* instead of *experts*.

Training Experts information:

- There should be clarification for the words *average* and *so so*.

  The word *so so* should no be used

On the basis of above suggestions some of the suggestions were incorporated in the data sheet cum questionnaire they were as:

- Instructions for filling the data sheet cum questionnaire were made clearer and all the sign were supported by the instructions.
The information about different rooms was covered under the umbrella of the physical infrastructural facility and not as different facility.

Information about more indoor games was included.

Instead of physically handicapped the word children with special need was used.

More space for the information regarding number of training programmes organized was provided in tool.

Information about the training programmes of DPEP and SSAM were also included in tool.

The word so so used for the performance of expert was replaced with average.

After incorporating the above mentioned suggestions in the tool and removing non required items and information, the final tool for data collection was finalized. The final tool prepared for this study is given Appendix-1

4.3.2 INTERVIEW SCHEDULE: For DIET Principal:

To carry out the interview with DIET principals one open ended questionnaire was prepared. This questionnaire consisted several questions which were directly concerned with the DIET principals in their actual field work and administration of the DIET. This questionnaire consisted six different questions seeking information about the difficulties faced by the DIET principal and the probable solution or suggestion regarding that point.
The outline of that questionnaire was as follow:

<table>
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<tr>
<th>Aspects:</th>
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<td><strong>Sr. No</strong></td>
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</table>

The interview schedule prepared for this study is given Appendix-2.

In support of the above mentioned data sheet cum questionnaire and interview schedule some other documents were also used for the data collection. These documents were annual administrative reports prepared by DIETs and GCERT, Teacher Education Resource Group (TERG) report prepared by DIETs and GCERT.

**4.4.0 METHOD OF RESEARCH:**

Present study dealt with the present working and status of DIETs of Gujarat. The main objective of the study was to find out the facilities available in the DIET and use of it. It was decided to evaluate different infrastructure facilities like laboratory, library, language room, seminar room, computer lab etc.. The study also related to the different financial assistants given to the DIET.

Each DIET has its own personal and typical problems and importance. So the MHRD guideline setup for DIET cannot be directly implied to all.
those institutes with same criteria. Each DIET has its own identity and local requirement. Each DIET has its own demographic situations or status.

Therefore this study was conducted at micro level so that state level comparative picture can be obtained. It was an attempt in this direction. It can give us the difficulties faced by the DIETs and on the basis of the findings necessary steps can be taken. This type of policy research can help the institute and at large the department to function in full swing.

Thus, to prepare a picture of working of DIET, the survey method is the most suitable method. Hence, the investigator decided to use survey method for present study.

4.5.0 DATA COLLECTION:

DIETs are functioning under GCERT. At the time of registration permission from Director, GCERT was taken because the investigator was serving as a Lecturer, at the DIET Ahmedabad.

For smooth data collection, it was decided to get a permission letter from Director GCERT for co-operation of all DIET Principals. (Copy of the permission letter is attached herewith as on Appendix-3).

A copy of the Data sheet cum questionnaire was posted to all the DIET principals along with permission letter issued by the Director, GCERT and were requested to provide necessary information from their documents. Personal efforts were made to collect filled data sheets cum questionnaire. After collecting required information from all DIETs, under investigation, an interview was held for each DIET principal. Before organizing interview, the data provided by DIETs and administrative reports of the same DIET were studied and missing information were listed out. Therefore such missing information can be collected during interview of said DIET principal. The
focus of the interview was to collect suggestions for smoothening of working of DIETs.

For catering suggestions to overcome difficulties, a discussion was held with DIET faculties too.

4.6.0 METHOD FOR DATA ANALYSIS:

The collected data was entered into computer by using MS_Excel. The data was classified according to the objectives of the present study.

Category wise Frequencies were converted into percentage. Infrastructural facilities available and its usability were analyzed by using percentage. *Trend graphs were plotted by using data of corresponding table and were smoothened by using MS_Excel Chart Option Function Software.* A trend analysis was done to work out increase or decrease in facilities.

For grant rating scale opinions were tested by using chi-square. A content analysis was employed for qualitative data received during interview of the different principals and dialogue with DIETs faculties.

4.7.0 OBSERVATION:

Tool preparation and data collection were the two major tasks for the study. During this process investigator had gone through many experiences. These observations were as follows:

- During the preparation of data cum questionnaire, the criteria for availability of different facilities were not mentioned or available in any referred documents.
Process of receiving suggestions regarding the tool took more than the expected time.

Compilation of suggestions and their justification and process of incorporating them to make final tool demanded very skillful job.

More time was spent on receiving the filled data sheet from the DIETs due to very busy schedule of DIETs.

During the interview schedule with DIET principal and faculty, they were very co-operative and were taking keen interest in discussion and giving suggestions for smoothening of the functioning of the DIET.

Investigator faced the difficulties in receiving very old data about the major purchase done year wise.

Data regarding the time duration of training programmes was difficult to collect and they were not comparable either.

4.8.0 CONCLUSION:

This was the important chapter therefore, the investigator had discussed with care about the, origin of the problem, population and sample, preparation of a tool, method of research, method for data collection and analysis, and the observation regarding the data collection. The next chapter would be related to the data analysis and interpretation in the light of objectives of the study.