CHAPTER VI
ANALYSIS AND INTERPRETATION

Background

Analysis of data means studying the tabulated material in order to determine the inherent meaning. A plan of analysis is to be chalked out before the actual collection of the material. Data are to be studied from as many angles as possible.

The process of interpretation is essentially one which states what the findings show. Interpretation is not to be taken as a mechanical process. It involves critical examination of the results of one's analysis in the light of his limitations of his data collecting.

Carter V. Good and others have said that 'An adequate knowledge not only of techniques of the research but also of one's field of study and a capacity to do careful and critical thinking are very essential to safeguard against mis-interpretation of facts collected'.

The present study involves three questionnaires, one each for student teacher, faculty member and office of teacher education institution. Different items of all the questionnaires have been arranged into seven broad categories for the purpose of clarity and convenience. Each item of the questionnaire has been tabulated in terms of percentage and has been interpreted categorywise. Thus keeping in view the overall percentage of an item and the interview notes, a suitable interpretation has been given by the investigator. Main categories comprising different items of these questionnaires are given below:

A. Nature and Organisation of Teacher Education Institutions.
B. Curriculum.
C. The Student-Teacher.
D. The Faculty Member.
E. Facilities.
F. Finance.
G. Problems and Trends.

The investigator has tried to analyse and interpret the items of different questionnaires relating to one category at one place. Thus, after analysing and interpreting all the items belonging to one category, he switched over to the next category.
A. Nature and Organisation of Teacher Education Institutions

There are above four hundred Secondary Teacher Education Institutions all over the country, whereas in Orissa the number of Secondary Teacher Education Institutions is six at present. Keeping in view the population of the state which is over twenty million, proportionately the number of T.E.I.s located in Orissa is less.

These six T.E.I.s of the state of Orissa are affiliated to the three universities of the State i.e. Utkal University (Three T.E.I.s), Sambalpur University (Two T.E.I.s) and Berhampur University (One T.E.I.), as shown in the map.

It is evident from questionnaire number 1 that out of six T.E.I.s, one is a part of the National Council of Educational Research and Training, an autonomous body and rest are run by the Education Department of the Government of Orissa. Only two T.E.I.s have got post-graduate teaching facilities leading to M.Ed. degree. One is situated at Bhubaneswar, governed by the N.C.E.R.T and another at Cuttack governed by the State Government. The T.E.I under the administrative control of N.C.E.R.T is residential in nature and the rest are partially residential. All the six institutions are co-educational in nature. One T.E.I located at Bhubaneswar i.e. Regional College of Education caters
to the needs of entire eastern region (Orissa, West Bengal, Bihar, Assam, Arunachal Pradesh, Meghalaya, Manipur, Tripura, Nagaland, Mizoram and union territory of Andaman and Nicobar islands) and the rest to the needs of the State of Orissa.

Item number 5 of the questionnaire 1 shows that T.E.I.s located at Balangir and Angul have imposed restrictions in admission. The former admits student-teachers coming from four districts only viz. Dhenkanal, Keonjhar, Mayurbhanj and Phulbani, whereas the latter one admits student-teachers belonging to Bolangir, Kalahandi, Sundargarh and Koraput districts.

This restriction has been imposed by the State Government keeping in view the facilities that have to be provided for training the weaker section of society i.e. scheduled caste and tribal people.

As indicated by item No.2 of the questionnaire 1, the oldest T.E.I. is situated at Cuttack, which was established in 1923. The T.E.I. at Angul was started in 1955, at Sambalpur in 1962, at Bhubaneswar in 1963, at Berhampur in 1965 and at Bolangir in 1968.

In response to the item number 7 of the questionnaire 1, it has been stated that there has been no private secondary teacher education institution in the State. Data collected in response to item No.6 show that there is not even a single T.E.I. in the state meant exclusively for training female/male
student-teachers. The nature of these T.E.I.s has been depicted in a tabular form, given below:

**TABLE No. 7**

Showing nature of T.E.I.s in Orissa

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of T.E.I</th>
<th>Year of Establishment</th>
<th>University oforigin</th>
<th>Post-Graduate University</th>
<th>Residence</th>
<th>Urban &amp; co-control</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Government Training College, Angul</td>
<td>1955</td>
<td>Utkal</td>
<td>Nil</td>
<td>Partial</td>
<td>Yes</td>
<td>State</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Govt.</td>
</tr>
<tr>
<td>2.</td>
<td>Khallikote Training College, Berhampur</td>
<td>1965</td>
<td>Berhampur</td>
<td>Nil</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Regional College of Education, Bhubaneswar</td>
<td>1963</td>
<td>Utkal</td>
<td>Yes</td>
<td>Almost</td>
<td>fully</td>
<td>NCERT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Govt.</td>
</tr>
<tr>
<td>5.</td>
<td>Radhanath Training College, Cuttack</td>
<td>1923</td>
<td>Utkal</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Government Training College, Sambalpur</td>
<td>1962</td>
<td>Sambalpur</td>
<td>Nil</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is evident from the data that to a large extent the education and training of secondary school teachers is exclusively the
responsibility of Government in Orissa. Private efforts could not be mobilised in this field and the responsibility of imparting teacher education could not be entrusted to public in the state, which is to some extent against the spirit of democracy. Since the Teacher Education is in the hands of State Government, it does not suffer from the malpractices usually adopted by T.E.I.s run by private agencies. None of the T.E.I.s are located in the rural area, though various commissions have emphasised the need of establishing T.E.I.s in rural areas. At present the policy-makers are trying to plan educational system in such a manner that the present and future needs of the people specially belonging to rural areas (above 75% of the population) may be met easily. Education is to be made a powerful instrument of social, economic and cultural transformation which is necessary for the realisation of national goals. This objective is to be achieved by the efforts of both Government and private agencies.

**Governing Body**

In response to the item No.9 of the questionnaire related to the Governing Body of T.E.I.s, it has been expressed that in one institution (Regional College of Education, Bhubaneswar) there is a local management committee duly constituted by the NCERT, where the Vice-chancellor of the Utkal University, to which it is affiliated, is ex-officio Chairman. In all, there are
eighteen members. Different states of the eastern region along with union territories get their representation on this body. Break up is as follows:

Chairman - Vice Chancellor - 1
Vice-Chairman - Principal - 1
Members and Experts - - - 16

(Members 7, Experts 2, Director's nominee (NCERT) 1, V.C's nominee 1, Professor of Science 1, Professor of Education 1, Permanent invitees 2, Section Officer 1 (Secretary).

In the other five Teacher Education Institutions governed by the Education Department of the State, the Governing Body is constituted in accordance with the rules of Orissa Education Code. Members are nominated by the State Government. Number of nominated members range from 7 to 11 as revealed from the data, in response to the item No.10 of questionnaire 1. Different sections of the society have got representation on the governing body. Faculty members, State Government representatives, political leaders, educationists, journalists, advocates, engineers, chairman Zila Parishad and Municipal board are the members of governing bodies of these T.E.I.s.
So far as the age of members of Governing Body is concerned, the data (item No.13 of questionnaire 1) state that only one member is below 35 years of age, 32% members are above 55 years of age and the rest are between 36 to 55 years of age. The representation of young people including students, on bodies like management committee is a growing demand all over the world, including India. However, it may be concluded that in Orissa there has been less opportunity for younger people and students to participate in administrative and academic life of T.E.I.s.

In all the T.E.I.s under survey, Principal is the ex-officio member of the governing body. However, there is no uniformity so far as the number of Governing Body Members and their background or walk of life is concerned.

In response to the item No.14 of questionnaire 1, which is related with educational qualifications of members of Governing Body, it has been revealed through data that no member is undermatric. Undergraduates are up to the tune of 7%, and the rest possess graduate and post-graduate degrees in different disciplines. The question whether a layman should have concern with teacher education or not is quite vital. A person qualified academically may not necessarily possess competence to manage teacher education. James Bryant Conant believes that 'What goes on in schools and colleges is not to be left-entirely to the educators.'
The layman as a citizen who votes and pays taxes has every reason to make his voice heard, as a parent as an alumnus, he should have concern with teacher education.  

Item number 15 of questionnaire 1 shows that the frequency of Governing Body meeting also varies from institution to institution. In two of these institutions, it is an annual feature, whereas in the rest of the T.E.I.s, it is held quarterly. In response to the item Nos. 16 and 17 which are meant to elicit the matters concerning Governing Body, it has been revealed that this body deals mostly with administrative matters and not the academic ones. Major administrative problems concerned with governing body are - appointment of Superintendent of hostel, appointment of ministerial staff, approval of boys fund, approval of list of holidays and appointment of staff on ad-hoc basis against the sanctioned post etc. The functions of the management committee of the R.C.E. are to:

1. Review from time to time the college programme or any aspect of it and make recommendations to the Governing Body of NCERT,

2. Recommend the conditions on which students deputed by the various states may be enrolled,

3. Recommend the number, types and duration of in-service courses to be offered by the college,

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4. Indicate the number of seats to be provided for each course and distribution of seats among the states,
5. Prescribe the criteria for selection of students for various courses,
6. Suggest policies and plans for carrying out student teaching, field experience and co-operation with schools,
7. Advise on the types of instructional material that the college should prepare,
8. Scrutinise and examine the proposals for inclusion in the budget and the development plan of the college,
9. Perform such other functions and discharge such responsibilities as may be assigned to it by the Governing Body of the NCERT.

The programme of the NCERT is given a final shape by its Governing Body, the members of which are as follows: President of the Council (Union Minister of Education) Vice President of the Council (Educational Adviser to the Government of India), not more than three persons appointed by the Ministry of Education, Secretary to the Ministry of Finance, The Director of the Council, two members of the Board of Educational Studies of the Council, Vice-Chancellor of Delhi University, one person to be nominated by the Vice-Chancellor of Delhi University.
In general it may be interpreted from the data that the Governing Body meetings are not that frequent as they ought to be. In such meetings mostly administrative matters are dealt with and not the academic ones. So far as the implementation of recommendations of Governing Body is concerned, responses indicate that by and large they are enforced. However, in T.E.I. located at Bhubaneswar the Local Management Committee exercises such powers of administration as are delegated to it by the Governing Body of the NCERT. Thus, it functions as an advisory body and policy matters are not decided by the Management Committee of this T.E.I.

A few faculty members at the time of interview expressed their views to set up a state Board of Teacher Education and to reorganise teacher education programme in the state after every five years.

**Instructional Days**

At present the duration of teacher training in all the six T.E.I.s under investigation is one academic session. In five T.E.I.s governed by the State Department of Education, as revealed from the data, the average of total number of working days is 205. However, in one T.E.I. located at Bhubaneswar, number of working days is 234 in a year. Total number of holidays in T.E.I.s administered by State Government is 16 days in a year. Total instr-
ucional days mentioned above are inclusive of time devoted to examinations, organising social gatherings and sport meets, celebrating national festivals and conducting other co-curricular activities. Taking into account the days meant for such activities, the actual instructional days come to 185 in a year in five T.E.I.s and in the sixth one it can be estimated as 210.

So far as the opening and closing date of Teacher Education Institutions is concerned, it may be concluded on the basis of the data collected that by and large it is homogenous. They open by the end of the first week of July and close for Summer Vacation by the end of the second week of May.

The investigator at the time of interview noted that the faculty members felt that the period available for imparting effective training to student-teacher is inadequate. Kothari Commission has also recommended to increase the number of instructional days and cutdown the number of holidays in a year. At present the working time per day, in terms of hours is less. A few faculty members suggested that minimum working days should be 235 in an academic session. They desired that a T.E.I. should run for six hours a day and long vacations should be cut down.
Curriculum and Method of Teaching

Pattern of Courses

The investigator will try to analyse and interpret the data related to curriculum including evaluation and the practices followed in the programme of secondary teacher education in Orissa. Pattern of the B.Ed. courses is based on the following:

A. Theory Courses,
B. Teaching practice or Internship,
C. Practical work and specialisation other than B.

A. Theory Courses

Many people have felt that in B.Ed. course more emphasis is laid on theory than the practical work. The data collected reveal that the pattern of courses including theory papers depends upon the university to which the T.E.I. is affiliated. There is a similar course in T.E.I.s situated at Angul, Bolangir, Berhampur and Cuttack. These T.E.I.s are affiliated to Utkal and Berhampur universities. There is a certain variation in courses of study between T.E.I.s affiliated to the universities of Sambalpur and Utkal. T.E.I. at Bhubaneswar is affiliated to the Utkal university, it is different from the other institutions affiliated to the same university, because the affiliation is exclusively for group B course. May be because the purpose of this T.E.I is to prepare
teachers for diversified courses. By and large, the total number of theory papers in T.E.I.s varies from 5 to 7. From the data collected it may be interpreted that theory papers are usually compulsory for a student-teacher except for a choice which is left to the candidate in teaching of two method subjects. However, in T.E.I. located at Sambalpur one special paper gives a choice of six areas for the candidate, out of which one area is to be selected for specialisation. A deeper study of the pattern of courses followed would reveal that there is variation not only in the number of papers to be offered by the candidate, but also in the topics included in these papers. Weightage assigned to different papers also differs in different universities of the state. It is clear that at present there is no agency to co-ordinate in order to maintain equal standard in the area of the curriculum.

School organisation is a part of Paper I (Principles of Education) in the courses followed in T.E.I.s located at Cuttack, Angul, Bolangir and Berhampur, whereas in T.E.I.s situated at Bhubaneswar and Sambalpur, it is a part of Paper VI (workshop in teaching) and Paper IV (Method of teaching) respectively. Again in T.E.I.s located at Sambalpur and Bhubaneswar Educational Psychology and statistics is a full fledged paper whereas in the rest of the T.E.I.s, it is added with Health Education to make Paper II. Important topics such as creativity, test-construction and standa-
rdication etc. have not been included in courses of studies in majority of the T.E.I.s under survey.

In T.E.I. at Bhubaneswar in order to enrich deficient area and to supply latest information there is a full paper for content of special subject (comprising of physical and Biological sciences) and workshop in teaching. Health, Physical Education and Recreation paper (H.P.E.R.) is included in the courses of study followed in the Regional College of Education only. A detailed study of theory papers reveals that some topics have been repeated in different papers offered by a student teacher though there may be little difference in approach or emphasis. Hygiene of school child has been included in courses of study as a full paper in T.E.I.s located at Angul, Bolangir, Berhampur and Cuttack, with an option of practical test in craft and evaluation of work under community life. In the T.E.I. at Sambalpur there is a paper known as sessional work and craft which includes Seminar participation and two term-papers along with community life, educational survey of locality and craft with an alternative choice of another paper i.e. Hygiene of school child.

By and large, it may be interpreted on the basis of data collected that there are many omissions and variations in the present courses of study of secondary teacher education programme in Orissa. There is a general complaint about the weakness on the
part of student-teachers in subject knowledge or content side. Sometimes it becomes difficult for the faculty members to impart adequately the techniques of teaching, when the foundation of subject knowledge is weak. Many teacher educators have advocated for the inclusion of content subjects in the curriculum. To avoid heaviness of the courses of study one may organise separately content courses with the help of universities, extension departments and other similar bodies. Some faculty members wanted to have equal weightage for theory and practice.

B. Teaching-practice or Internship

In all the T.E.I.s under investigation, there is a system of teaching practice meant to convert principles learnt in theory into practice which is based on continuous block period, as shown by responses given to item No.34 of questionnaire 2. In one T.E.I. situated at Bhubaneswar, the entire programme of teaching practice has been converted into complete programme of internship (item No.35 of questionnaire 2), but here too, it is on the basis of block-period system.

A student-teacher is expected to teach two method subjects during teaching-practice in all the T.E.I.s except one located at Bhubaneswar. However in T.E.I. located at Bhubaneswar the candidate is to appear in the final examination for one lesson only. In response to item No.19 concerning minimum number of lessons required
for teaching practice, data show (item 20 of questionnaire 3) that in five T.E.I.s governed by the State Department, it is 30 + 2 (two supervised criticism lessons) whereas in one T.E.I. under the N.C.E.R.T., it is 40. The system of criticism lesson does not exist in all the T.E.I.s. In T.E.I. located at Bhubaneswar, there exists a pre-internship programme where student-teachers are exposed to certain orientation talks and observation of lessons delivered by fellow teachers. This programme continues for a week or so and is followed by Internship programme.

So far as choice of method subject is concerned, as revealed by the responses to item No.18 of the questionnaire 3, Science, Mathematics, English and History are a few subjects which are on the top position. Responses to item No.32 of questionnaire 2 reveal that in all the six T.E.I.s student teachers are permitted to offer a subject for teaching practice, which was not taken by them in the degree course. This shows a contradiction with the recommendation of Kothari Commission.

Variations have been found with regard to the organisation of teaching practice in different T.E.I.s. So far as duration of block of time is concerned, data (item 24 of questionnaire 3) show that teaching-practice has been staggered over a block of time ranging from 4 to 8 weeks in four institutions, whereas in the rest of the institutions it has been spread over to 10 weeks time period approximately.
For demonstration purpose, as revealed by the data, all the T.E.I.s have one school attached to them, which is under the administrative control of the Principal. However, the number of practising schools differs from institution to institution. It ranges from 2 to 6 in five T.E.I.s, whereas in one having Internship programme it is as large as 24.

Data show (item No.21 of questionnaire 1) that more than 80% of the practising schools are situated within 2 kilometres from their T.E.I.s. Such schools are preferred because they save time, money and bring efficiency at a higher rate as compared to schools which are situated at a distance. In one T.E.I. which is regional in character this question does not arise. However, student-teachers get difficulty in 20% cases, where the practising schools are located at a distance of 2 to 5 kilometres from the T.E.I.

Medium of instruction in all the T.E.I.s run by State Government remain the regional language i.e. Oriya. The response to item No.19 of the questionnaire 1 shows that in one T.E.I which caters for the people of the entire eastern region, different languages viz. English, Hindi, Oriya, and Bengali have been adopted as medium of instruction for teaching-practice.

In all the six T.E.I.s there has been a practice of arranging demonstration lessons for the benefit of the student-teachers, as expressed from the data (item No.37 of questionnaire 2). These
model lessons are arranged before a student teacher is exposed to teaching-practice and are invariably followed by discussions. (item Nos. 26 and 27 of questionnaire 3) Generally these demonstration lessons are arranged by only method masters. In a few cases school teachers are also provided opportunity to demonstrate, as shown through item No. 39 of questionnaire 2. Faculty members in general have welcomed the criticism and discussions based on model lesson delivered by them as indicated by item No. 38 of questionnaire 2.

The data (item No. 29 of the questionnaire 1) reveal that in five T.E.I.s above 90% of the lessons delivered by the student teacher is supervised. In one T.E.I. located at Bhubaneswar, however, the percentage of lessons supervised by the college staff is about 12, which is quite alarming. This may be because of the practising schools being distributed throughout the eastern region. It may be added that the supervision of teaching-practice must be strengthened because it has been a weak link in the teacher-education programme. In almost all cases the lesson is to be approved in advance. (item No. 23 of questionnaire 1) In response to item No. 30 with regard to supervisor observing lessons pertaining to their own subjects only, data reveal that throughout Orissa the practice followed is quite reverse than desired. In response to item No. 31 of questionnaire 1, it has been expressed that school
teachers are not involved in supervision work in general. In only one T.E.I. where teaching practice has been converted to Internship programme, co-operating teachers also supervise lessons delivered by the student teachers, but not methodically and properly always. The role of the co-operating teacher is to guide the student-teachers in preparing lesson plans and record their observations on the body of the lesson plan with a view to help improve their teaching.

In general, it may be interpreted that the system of teaching practice differs from institution to institution. Number of method subjects, lesson to be taught, medium of instruction and mode of supervision also varies from T.E.I to T.E.I. Owing to discrepancy in the above mentioned areas the teaching-practice has become a weak link in the teacher-education programme. Some faculty members wanted to expose student teachers for simulated teaching before they are put to actual class-room situation. Some pleaded for short lesson-plans at the time of interview. Some had the view that minimum number of lessons to be delivered should not be fixed. In general faculty members felt the need to improve the teaching-practice urgently.

C. Practical work and specialisation

In only one T.E.I. situated at Sambalpur there is provision for specialisation. The paper offers a choice in six special fields. Specialisation gives additional knowledge to the student-teacher
to meet the professional challenges efficiently and effectively. A separate study may be undertaken by someone to find out the need and possibility of offering course for specialisation.

In response to item No. 33 of questionnaire 2, it is stated that there has been a provision for a full fledged paper (Paper V) which relates to practical test in craft and community life in four T.E.I.s. In one T.E.I. there is provision for one paper which includes participation in Seminar, two term papers, craft work, community life and educational survey. In one T.E.I. at Bhubaneswar, student-teacher is to complete five assignments (case study, survey report, two teaching aids, objective test, report on co-curricular activities organised) during the internship programme.

**Tutorial work**

Responses received to the items 27 to 30 reveal that in two T.E.I.s there is no tutorial work of any sort. In the rest of the T.E.I.s the tutorial work is included in the work-load of the teacher educators and one class of 45 to 50 minutes is devoted for it per week. Number of tutorial groups range from 4 to 9 in these T.E.I.s and by rotation each group meets the faculty member. Number of student-teachers in a tutorial group varies from 16 to 32. So far as the nature of work in tutorial classes is concerned, it is mostly in form of written work,
discussion and assignment. No importance is given/the evaluation of tutorial work. One may conclude that the implementation of Tutorial System is difficult in the T.E.I.s, where proper rooms, library facilities and adequate staff are lacking. However, majority of teacher education institutions are in favour of tutorial system.

Medium of instruction, Flexibility of Curriculum and Method of teaching

In all the T.E.I.s under investigation medium of instruction of theory papers is English (item No. 8 of questionnaire 3). Data show that 40% student teachers do not find curriculum flexible and suited to their requirements as indicated by item No. 11 of questionnaire 3. A few shortcomings of the curriculum have been mentioned by the student-teachers viz. that it is heavy, time consuming, emphasises on theory more than practice, not job oriented, not need based, emphasises on crafts, does not accept regional language as medium of instruction, lacks knowledge of content and lacks optionals etc.

Responses to item number 12 of questionnaire 3 reveal that more than one third of student-teachers do not find the education received in T.E.I.s adequate to meet the requirements of a good teacher. It may be interpreted on the basis of the responses received that the existing curriculum, in T.E.I.s is not helpful in producing
a competent teacher and a reorganisation is needed keeping in view the needs of the individual, society and the nation.

Item No. 42 of questionnaire 2, has indicated that by and large, the faculty members are teaching through lecture method. Discussion, question-answer and seminars are also used occasionally. However methods such as project and Micro-teaching etc., have never been used by teacher educators. Not even team teaching has been resorted to in any of the T.E.I.s under study. A common charge levied against teacher education institutions is that they are still using old Herbartian steps and lecture method etc., in preparing teachers. In countries like U.S.A. and U.K simulation techniques have been used effectively in teacher education programme for imparting desired skills. Work done by Allen and Ryan related to Micro teaching has given new direction to education and training of teachers. Micro teaching which is a scaled-down teaching act, has reduced the complexities of the real class-room situations to minimum and at the same time unlike the teaching practice it has greatly enhanced the level of feedback. Thus, specific skills can be developed easily by using microlessons. Team-teaching is another experiment which has been carried out specially in U.S.A with success. Team teaching is primarily an attempt to make the most efficient use of teachers. A senior teacher educator is made incharge, and two other teachers who make a team, are assigned different tasks related to teaching and
learning process, audiovisual aid, evaluation, assignment etc. In short it may be interpreted at this juncture that in T.E.I.s under investigation, old traditional teaching methods are in use and there is a need to experiment with novel techniques such as micro teaching and team teaching in order to improve upon teaching methods.

**Other Provisions**

In response to item Nos. 65 and 66 of questionnaire 1, data reveal that school teachers, librarians and Inspectors of Schools are eligible to appear in B. Ed. examinations provided they had education as a subject in their degree course and possess two-years teaching experience. Number of such candidates has been on an increase. During the year 1968-69 the number was 53 which has gone up to the tune of 178 in T.E.I.s run by the State Government in the year 1970-71. However, it is desirable that such a facility extended should not result in the dilution of the standard of teacher education programme in the State of Orissa.

**Evaluation**

It is evident that internal assessment in theory upto the tune of 25% is the characteristic of evaluation scheme followed in only one of the T.E.I.s located at Bhubaneswar. However in the rest of the T.E.I.s there is no internal assessment and they have adopted external examination system in theory papers. The purpose
of internal assessment is to improve teaching learning process. Therefore, evaluation should be taken as a continuous process. Assessment of Internship in teaching in this T.E.I is based on sessional work upto the tune of 50% of marks. This is done by the faculty members, co-operating teachers and the Headmasters of co-operating schools. One final lesson is assessed by both external and internal examiners for 50% of marks. In four T.E.I.s final practical test in teaching is carried out in two method subjects and is evaluated by both external and internal examiners. 30 marks out of 300 (to be sent by the Principal direct to the University) are set apart for the maintenance of the record of sessional work. In the T.E.I located at Sambalpur practical test in teaching of two method subjects carries 200 marks. It may be interpreted that weightage given to teaching-practice in T.E.I.s of Orissa shows a marked variation. In T.E.I at Bhubaneswar 30% of the total marks are assigned for Internship, in T.E.I. at Sambalpur only 25% of the total marks have been set apart for teaching practice and in the rest of the T.E.I.s 38% of the total marks have been assigned for teaching practice. Moreover, the weightage given to the record of work done by a student-teacher also differs in different T.E.I.s of the State.

In response to item No.61 of the questionnaire No.3, majority of student-teachers (above 90%) have reported that they have not been informed about their internal assessment from time to time.
In response to the item No.63 of questionnaire 3 with regard to the provision of assessment in community work, data collected reveal that there is such provision in all the T.E.I.s managed by the State Department. However in the T.E.I at Bhubaneswar there is no such provision for craft and community work assessment. In T.E.I.s situated at Angul, Balangir, Berhampur and Cuttack practical work (in the form of craft-tailoring, spinning, weaving, agriculture, wood work, fruit preservation) and community life comprises of one full paper of 100 marks. Break-up is 65 marks for craft and 15 for Record of craft-work and 20 for record of community life. However, in T.E.I at Sambalpur 100 marks allotted to sessional work and craft have been divided in a different manner. Craft has been assigned 30 marks, community life 20 marks, seminar participation and term-paper up to the tune of 40 marks, and educational survey of locality 10 marks. Responses received to item No.66 of questionnaire 3, show that none of the T.E.I.s under survey are maintaining cumulative record cards for the benefit of student-teachers. At the time of interview the investigator has noted that the faculty members lay stress on giving equal weightage to theory and practice and adapting a system of evaluation which should be reliable and valid.

Pass percentage and Divisions

The present practice is that in order to pass, a candidate must obtain a minimum of 36% of marks in each theory paper and 40% of marks in each practical paper. A candidate who fails in one paper
by not more than 5% and has obtained 50% in the aggregate marks, is allowed to pass.

A candidate, who obtains 60% marks in the aggregate is declared to have passed with Distinction. Above mentioned rules are applicable in all the five T.E.I.s governed by the State Government. However, in the T.E.I located at Bhubaneswar where there is a system of internal as well as external assessment a candidate, in order to pass, should get 40% in each paper in internal assessment, 36% in each theory paper in external assessment and 50% in practical paper in the university examination and 40% in the aggregate of the maximum marks prescribed for the examination. Item No.46 of questionnaire 2 elicited the response indicating that divisions and distinctions are based on the following percentage of marks:

- **II Division**: 40% or above but less than 60% on the aggregate.
- **I Division**: 60% or above on the aggregate.
- **Honours**: A candidate who passes in all subjects in the first attempt, and scores 75% of marks in any subject is declared to have passed with Honours in that subject.

Responses received to item Nos.44 and 45 of questionnaire 2, show that unsuccessful candidate will have to appear in all the
subjects next year. Moreover, a candidate is to pass separately in theory and teaching practice.

It may be interpreted that in only one T.E.I. there is a system of awarding first and second divisions along with Honours whereas in rest of the T.E.I.s there are only two Divisions viz., pass and Distinction. A few faculty members suggested to adopt grading system in order to improve upon the evaluation procedure.

The Student-Teacher Qualification etc.

In response to the item No.2 of questionnaire 3 related to their age, the data reveal that 59% of student teachers are below 25 years of age and 33% of them fall in the age range between 26 to 30 years. Only 3% trainees were above 30. One may conclude that the profit derived by such teachers through the professional preparation would not last for more than 25 years. However, it may be interpreted that, by and large, the population of student-teachers is young in age.

Majority of student-teachers (above 33%) come from rural areas. Only 17% belong to urban areas as is evident from the responses received to the item No.3 of questionnaire 3. The qualifications laid down for admission to a secondary teacher education institution is Bachelors degree in Arts, Science or Commerce etc. So far as academic qualifications are concerned, data (item 4 of
questionnaire 3) reveal that 53% of student-teachers are Arts graduates and post-graduates, 41% of them have science degrees and only 1% is from other disciplines like Commerce. Only 49 student-teachers possess master's degree in arts and science out of 766 i.e. about 6% of the population.

It can be interpreted at this point that graduates coming from the rural areas prefer to get teacher-training than to continue their education for post-graduate degrees. This tendency is more prevalent in case of arts graduates than graduates of other streams. Probably post-graduate students do not find the teaching profession interesting and alluring. May be that graduates, mostly arts graduates join the profession as a last resort when they do not get employment elsewhere. Commerce stream is not popular in the State of Orissa. However, in the T.E.I at Bhubaneswar, there is a provision to admit limited number of commerce graduates to the one-year B.Ed.Course. There is a need to give certain incentives to graduates other than arts graduates having good academic record to enable them to join the T.E.I.

Item 5 of questionnaire 3 has elicited the details related to the teaching experience of student-teachers. Data show that 21% of the entire population are fresh graduates and post-graduates, 23% of student teachers have got teaching experience upto 2 years, 36% of them possess 2 to 5 years of teaching experience to their
credit and 14% have teaching experience above 5 years. It can be interpreted that majority of student teachers (79%) had teaching experience in class-room situations before joining the Teacher Education Institution. However, the investigator could note the reaction of teacher educators at the time of interview that much of teaching experience may lead towards a point where a student-teacher may not like to learn novel techniques of teaching, through teacher education programme.

Admission Procedure

In response to the item No.6 of questionnaire 3 related to selection procedure, it may be said that although the academic record, teaching experience and co-curricular activities are the main criteria of selection of student-teachers, the procedure differs from institution to institution. In none of the T.E.I.s under survey there is written test of any sort. For the T.E.I.s under State Government, there is a gazette notification which lays down the conditions of selection. The basis of selection should be: (a) percentage of marks at degree examination; (b) career of the candidate from matriculation onward; (c) teaching experience in a recognised High/M.E.School; (d) special talents in dramatics, games, sports and N.C.C. and; (e) marks secured at the interview.
During the course of interview with faculty members the investigator could find out that awarding marks for the compilation of a merit list for admission, is to some extent subjective, and the procedure varies from one T.E.I to another. For example at Angul, 15 marks are kept for interview in which potentiality of a teacher, his balanced personality, language, and expression are given weightage. Co-curricular activities are not given weightage as they are difficult to measure. For teaching experience upto 3 years, 1 mark for each complete year of service and from 4th year 2 marks for each year, subject to a maximum of 15 marks, are assigned. Whereas in T.E.I. at Bolangir the system followed is somewhat different in the sense that co-curricular activities are given weightage and marks are given for each year of experience subject to the maximum limit of 10 only. System of awarding marks for the academic career also shows a variation in these T.E.I.s. However, aptitude-test for admission to T.E.I.s has not been used though the idea has been favoured by some faculty members at the time of interview, to eliminate subjectivity and to bring uniformity in recruitment procedure.

From data it can be concluded that only 5% of student-teachers are earning by tuitions (item No.47 of questionnaire 3). This may be due to the fact that the stipend (the amount of which is fixed) received by a student teacher does not meet his requirements, as the prices have gone up. In response to item No.46 of the
the same questionnaire, 96% student-teachers have expressed that the financial assistance (Rs. 80.00 p.m in all T.E.I.s run by the State Government and Rs. 75.00 per month in the T.E.I. run by the N.C.E.R.T) is not sufficient. Data reveal that there is no other source of income for almost all the student teachers.

Sanctioned strength-and Enrolment

So far as the sanctioned strength is concerned it varies from institution to institution as is evident from the responses to the item Nos. 47 to 49 of questionnaire 1. In two of the T.E.I.s number of student-teachers admitted to the B. Ed. Course was less than the sanctioned strength, which is probably due to drop-outs. Reasons for excess and shortage in enrolment (as compared to sanctioned strength) were also mentioned by a few T.E.I.s. Limited number of stipends, non-availability of qualified candidates, compulsory residence in hostel, medium of instruction being English were a few causes for this. The present strength is given below in a tabular form.

<table>
<thead>
<tr>
<th>TABLE No. 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Showing present strength and sanctioned strength in T.E.I.s of Orissa (1971-72)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strength</th>
<th>Angul</th>
<th>Bola</th>
<th>Berha</th>
<th>Bhuban</th>
<th>Cuttack</th>
<th>Sambal</th>
<th>Jipur</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present enrolment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>32</td>
<td>16</td>
<td>41</td>
<td>18</td>
<td>38</td>
<td>45</td>
<td>192</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>96</td>
<td>104</td>
<td>119</td>
<td>100</td>
<td>146</td>
<td>135</td>
<td>698</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>120</td>
<td>160</td>
<td>118</td>
<td>184</td>
<td>180</td>
<td>890</td>
<td></td>
</tr>
<tr>
<td>Strength sanctioned</td>
<td>128</td>
<td>120</td>
<td>160</td>
<td>120</td>
<td>185</td>
<td>130</td>
<td>893</td>
<td></td>
</tr>
</tbody>
</table>
Out of the total population lady student-teachers are to the tune of 22%. It is due to the fact that there is no T.E.I. meant exclusively for lady teachers in the State of Orissa.

Response to item No. 49 of questionnaire 1, shows that increased enrolment in Teacher Education Institutions did not accompany with corresponding increase in facilities. It may be concluded that this may be one of the reasons for the downfall of the quality of teacher education. The table given below indicates the trend of enrolment in Teacher Education Institutions. (Figure 4)

TABLE No.9
Showing Trend of enrolment in Teacher Education Institutions of Orissa

<table>
<thead>
<tr>
<th>Enrolment in the year</th>
<th>Angul</th>
<th>Balabhera</th>
<th>Bhubaneswar</th>
<th>Cuttack</th>
<th>Sambalpur</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969-70</td>
<td>128</td>
<td>30</td>
<td>112</td>
<td>123</td>
<td>160</td>
</tr>
<tr>
<td>1970-71</td>
<td>128</td>
<td>80</td>
<td>112</td>
<td>118</td>
<td>160</td>
</tr>
<tr>
<td>1971-72</td>
<td>128</td>
<td>120</td>
<td>160</td>
<td>118</td>
<td>184</td>
</tr>
</tbody>
</table>

It has been revealed at the time of interview that the number of applications received by Teacher Education Institutions for B.Ed. admission has also been on an increase, approximately at the rate of one and a half times except in two of the T.E.I.s where admission is restricted to a few districts only.
FIG. 4. ENROLMENT DURING 1969-70 TO 1971-72.

No. of Student-Teachers


YEAR
Reservations of Seats

In all the six T.E.I.s under investigation 10% seats have been reserved for Scheduled caste and Scheduled tribe candidates. As a general rule 25% seats are reserved for lady candidates seeking admission to B. Ed. Course. Probably this provision has been made to help lady candidates to join the teaching profession. In one of the T.E.I.s under investigation, deputed candidates by the government get preference in seeking admission to the B.Ed. Course. This may be because of the regional character of the Teacher Education Institution.

Output and Wastage

By computing actual enrolment, drop-outs and failures in a Teacher Education Institution, one may find out the total output and also the extent of wastage existing in a T.E.I. The investigator has tried to calculate the wastage in Secondary Teacher Education Programme in Orissa, considering failures and drop-outs together to indicate the wastage. Drop-outs occur throughout the session, while failures occur at the end. However both lead to wastage in financial and human terms. Therefore, such calculation of combined wastage may be helpful in planning proper programmes of teacher education in future.

The output during the year 1969-70 and 1970-71 has been calculated and presented in a tabular form. The last column in the tables relates to the combined wastage, out of failures and drop-outs. Total number of cases against this column has been converted
into percentage in order to find out the extent of wastage in the field of Secondary Teacher Education in Orissa.

**TABLE No. 10**

Showing output and wastage in T.E.I.s during 1969-70

<table>
<thead>
<tr>
<th>T.E.I.</th>
<th>Enrolment</th>
<th>Output</th>
<th>Drop-out and failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angul</td>
<td>128</td>
<td>123</td>
<td>5</td>
</tr>
<tr>
<td>Bolangir</td>
<td>80</td>
<td>80</td>
<td>-</td>
</tr>
<tr>
<td>Berhampur</td>
<td>112</td>
<td>108</td>
<td>4</td>
</tr>
<tr>
<td>Bhubaneswar</td>
<td>123</td>
<td>110</td>
<td>13</td>
</tr>
<tr>
<td>Cuttack</td>
<td>160</td>
<td>149</td>
<td>11</td>
</tr>
<tr>
<td>Sambalpur</td>
<td>160</td>
<td>153</td>
<td>2</td>
</tr>
<tr>
<td>Orissa</td>
<td>763</td>
<td>728</td>
<td>35</td>
</tr>
<tr>
<td><strong>Percentage</strong></td>
<td><strong>95.4%</strong></td>
<td><strong>4.6%</strong></td>
<td></td>
</tr>
</tbody>
</table>

**TABLE No. 11**

Showing output and wastage in T.E.I.s during 1970-71

<table>
<thead>
<tr>
<th>T.E.I.</th>
<th>Enrolment</th>
<th>Output</th>
<th>Drop-out and failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angul</td>
<td>128</td>
<td>127</td>
<td>1</td>
</tr>
<tr>
<td>Balangir</td>
<td>80</td>
<td>76</td>
<td>4</td>
</tr>
<tr>
<td>Berhampur</td>
<td>112</td>
<td>110</td>
<td>2</td>
</tr>
<tr>
<td>Bhubaneswar</td>
<td>113</td>
<td>111</td>
<td>7</td>
</tr>
<tr>
<td>Cuttack</td>
<td>160</td>
<td>153</td>
<td>7</td>
</tr>
<tr>
<td>Sambalpur</td>
<td>160</td>
<td>159</td>
<td>1</td>
</tr>
<tr>
<td>Orissa</td>
<td>758</td>
<td>736</td>
<td>22</td>
</tr>
<tr>
<td><strong>Percentage</strong></td>
<td><strong>97%</strong></td>
<td><strong>3%</strong></td>
<td></td>
</tr>
</tbody>
</table>
From the above tables it is evident that there has been a wastage up to the tune of 4.6% in the year 1969-70 and 3% in the year 1970-71 (figure 5 and 6 respectively). The investigator puts importance to it and believes that efforts should be made to reduce it to the minimum. A careful selection of student teachers and proper planning of programmes of teacher education should be emphasised to avoid such a wastage.

The Faculty Member

Staff-Student ratio

Teacher taught ratio to certain extent can give an idea of the quality of teacher education existing at a particular level. Responses received against item No. 67 of questionnaire 1, pertaining to staffing pattern have been tabulated below to present an overall picture of the same. (Figure 7)

<table>
<thead>
<tr>
<th>T.E.I.</th>
<th>Professor</th>
<th>Reader</th>
<th>Lecturer</th>
<th>Instructor</th>
<th>Total Staff</th>
<th>Total Student</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angul</td>
<td>-</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>11</td>
<td>128</td>
<td>1:11</td>
</tr>
<tr>
<td>Bolangir</td>
<td>-</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>120</td>
<td>1:20</td>
</tr>
<tr>
<td>Berhampur</td>
<td>-</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>8</td>
<td>160</td>
<td>1:20</td>
</tr>
<tr>
<td>Bhubaneswar</td>
<td>1+1</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>13</td>
<td>120</td>
<td>1:9</td>
</tr>
<tr>
<td>Cuttack</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>4</td>
<td>15</td>
<td>135</td>
<td>1:12</td>
</tr>
<tr>
<td>Sambalpur</td>
<td>-</td>
<td>1</td>
<td>7</td>
<td>2</td>
<td>10</td>
<td>180</td>
<td>1:18</td>
</tr>
<tr>
<td>Orissa</td>
<td>3</td>
<td>7</td>
<td>36</td>
<td>17</td>
<td>63</td>
<td>893</td>
<td>1:14</td>
</tr>
</tbody>
</table>
Fig. 5 - Combined Wastage in Teacher Education for 1969-70

No. of Students

T.E.I.'s.

INDEX:
A → Angul
B → Bolangir
C → Berhampur
D → Bhubaneswar
E → Cuttack
F → Sambalpur

- ENROLLMENT
- Output

- WASTAGE (Dropout + Failure)
Fig. 6. Combined Wasteage in Teacher Education in Orissa (1970-71)
FIGURE 7. SHOWING DISTRIBUTION OF STAFF
ACCORDING TO DESIGNATION 1971-72.
For the purpose of calculation of staff-student ratio, total number of student teachers (393) is divided by the total number of teacher educators (46). Thus, the ratio comes to 1:19, in case only academic staff is taken into consideration. However, if one accounts for instructors of craft, tailoring, agriculture etc., then this ratio becomes 1:14. The ratio thus arrived at is certainly not very heartening by any measurement. Moreover in two T.E.I.s there is a provision of post-graduate classes, and the ratio would have been much poorer had the investigator calculated the teaching staff exclusively meant for B. Ed. teaching. However, care has been taken in excluding academic staff, meant for teaching other courses such as four-year integrated course etc., run by the same institution.

It can be interpreted that this ratio as compared to the ratio 1:10 found for T.E.I.s of entire nation in 1964-65, through second national survey of secondary teacher education, is to some extent poor and must be improved upon.

Interview with faculty members revealed that the sanctioned posts of Lecturers and Readers have not been released in some T.E.I.s. This is probably because of the economic stringency on the part of government at the state as well as at the national level.

Qualification, Age, Experience etc.

As regards qualification of faculty members working in different T.E.I.s, data reveal that out of 46 teacher educators
34 have supplied the information. Out of them 6 (17%) have Ph.D. degree, 13 (38%) possess Bachelor's degree (pass or honours) along with Master's degree in Education. These teacher educators do not possess double Master's degree as recommended by Kothari Commission. There are 5 (15%) teacher educators having Master's degree in school subjects with B. Ed. The rest of teacher educators possess double Master's degree. It may be interpreted on the basis of the collected data, that if minimum qualification for appointment in a T.E.I. is to be taken as double Master's degree, 53% of teacher educators in Orissa are below this qualification. Thus, there is a need for general upgrading of qualifications of teacher educators in the state of Orissa. However, so far as the divisions are concerned, their academic career seems to be fairly good.

Collected data make it clear that 56% of teacher educators in Orissa are working on temporary basis and 44% in a substantive capacity (item No.5 of questionnaire 2). Through item No.6 of questionnaire 2, it can be interpreted that teacher educators having teaching experience even upto 7 years to their credit are also working on temporary basis. Teacher educators having Ph.D qualification along with 5 to 7 years of experience of teaching have not been put in substantive capacity by the Education Department of the State. This state of affair is rather painful and one hopes that it would be ameliorated before long. So far as the age of teacher educators is concerned, responses to item No.2 of ques-
questionnaire 2, show that it ranges from 27 years to 56 years but a large section falls between the age of 35 to 45.

In all the T.E.I.s run by the State Department of education without a single exception all the teacher educators belong to Orissa whereas in T.E.I located at Bhubaneswar, which is regional in nature, there are teacher educators from different states of the country. In response to item No.7 of the questionnaire 2, it has been replied that not even a single teacher educator is involved in private tuition.

So far as the teaching experience of teacher educators is concerned it may be concluded on the basis of data collected that by and large principals have got more experience than Lecturers and Readers. In general it may be interpreted that as in the State Government promotion to the post of Principalship, is based strictly on the basis of seniority. Therefore, it is obvious that the head of the T.E.I possesses more teaching experience. However, the present trend as advocated by the University Grants Commission is to appoint teaching staff on the basis of merit and not on the basis of seniority. Again it is evident from the data that majority of teacher educators in Orissa possess teaching experience of four-years and above. Item Nos.39 and 40 of questionnaire 3, reveal that although teacher educators are quite helpful to student teachers, about half of the population feel that they do show preferential treatment to student-teachers whom they like. This reflects the personality of
teacher educators as judged by student-teachers. Needless to say that the selection of teacher educators is one of the vital issues in the programme of teacher-training.

**Work Load**

The work load is usually of two types - Teaching and Supervision. Teaching work load in terms of periods per week, for Principals and Professors ranges from 4 to 10 as revealed by the data. In case of Readers, teaching load was found to be between 4 to 14 periods per week. Teaching work load in terms of periods per week for Lecturers ranges from 4 to 20. (In 1 T.E.I it is equal to 50 minutes). However in T.E.I.s where teacher educators are supposed to teach classes other than B.Ed., work load is comparatively more.

In general it may be interpreted that teaching work load of faculty members ranges from 4 to 20 periods per week. This calculation does not include time consumed by other responsibilities such as supervision, correction of lesson plan, and research work etc. However, it may be concluded that keeping the U.G.C norm in mind (18 periods per week) teacher educators in Orissa are not heavily loaded with teaching work.

Supervision of teaching practice is not a continuous process for the whole session. In all the six T.E.I.s under investigation there is a system of Block period which is being followed for
The internship or teaching practice. This block of time in these T.E.I.s ranges from 4 to 10 weeks. During block practice, teaching work is suspended in T.E.I.s. Thus by simply adding lecture work and supervisory work, one cannot find the correct work-load of a teacher educator. However, there is no uniformity in supervisory work too. However, data collected show that by and large, the supervisory work of faculty members ranges from 12 to 42 periods per week. It is quite difficult to ascertain the level and duration of supervision done, because the figures in terms of periods per week are deceptive. Such figures may not be of much significance so far as the desired improvement is concerned. In two T.E.I.s having post-graduate classes, faculty members are also involved in guiding dissertation work, which is not taken care of at the time of calculating work-load of a teacher educator.

In response to item Nos. 27 to 30 with regard to tutorial work, two T.E.I.s have given negative reply i.e. there exists no tutorial system of any sort in these institutions. However, in the remaining T.E.I.s one to two periods of tutorial work in a week is being done by the faculty members and this has been included in their work-load.

Salary scales and other facilities

Five T.E.I.s are administered by the Department of Education of the State, hence there is parity in pay scales of faculty members working in these institutions. Data collected reveal that the
following scales are prescribed - (item No. 67 of questionnaire 1).

<table>
<thead>
<tr>
<th>Position</th>
<th>Salary Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor</td>
<td>Rs. 150 - 300</td>
</tr>
<tr>
<td>Lecturer</td>
<td>Rs. 260 - 720</td>
</tr>
<tr>
<td>Reader</td>
<td>Rs. 600 - 1000</td>
</tr>
<tr>
<td>Professor</td>
<td>Rs. 950 - 1250</td>
</tr>
</tbody>
</table>

Faculty members are to get D.A as per rules of the State Government in addition to their salary. However, in the T.E.I. managed by the NCERT, faculty members are getting pay scales as per recommendations of Kothari Commission i.e

<table>
<thead>
<tr>
<th>Position</th>
<th>Salary Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturer</td>
<td>Rs. 400 - 950</td>
</tr>
<tr>
<td>Reader</td>
<td>Rs. 700 - 1250</td>
</tr>
<tr>
<td>Professor</td>
<td>Rs. 1100 - 1600</td>
</tr>
</tbody>
</table>

In addition to their salary they get D.A as per Central Government rules.

Thus data speak that salary scales in the State-run T.E.I. are lower than the institution run by the Central Government where the scales are in accordance with the U.G.C recommendations. This disparity in pay scales is due to limited resources of the State. Pay scales as recommended by Kothari Commission could not be implemented so far in the State of Orissa. At the time of interview with faculty members, it has been revealed that salary scales are not revised after every five years or so.
Item Nos. 24 and 25 of questionnaire 1 with regard to quarters facility for the faculty members have elicited responses indicating that in 2 T.E.I.s there is no such provision and in the rest there is provision of residential accommodation for the faculty members. In T.E.I.s where such provision exists, minimum 13 and maximum 33 percent of the staff members have been provided with quarters. However, in one T.E.I. at Bhubaneswar above 50% of the faculty members have been extended this privilege. As far as residential accommodation is concerned, in general it may be concluded that the present position is not satisfactory.

Professional growth and In-service Education

In response to item No. 14 of questionnaire 2, it has been revealed that out of 34 faculty members working in T.E.I.s, who supplied information, eleven members have not attended any seminar or conference of any sort at any time. However, 23 members of the staff including Principals have attended in-service programmes either as resource persons or as participants. Few have attended more than four in-service programmes. It can be interpreted at this stage that in-service education provided to teacher educators in the State of Orissa is far from being satisfactory. The investigator feels that in-service education aiming at professional growth of teacher educators should not be left as such and immediate steps must be taken to strengthen it.
In only two T.E.I.s out of the six under investigation, facility for in-service education through extension department exists. Pre-service education simply lays down some foundation and it is through in-service education that a teacher can meet the new challenges of the profession confidently and effectively. From the data collected it is evident that opportunities for in-service education (ISE) for teacher educators and teachers have not been found sufficient by any standard. Lack of interest in in-service programmes may be due to lack of incentives, due to difficulty in getting leave from the parent institution and due to poor quality of such programmes etc. Financial difficulties might be responsible for less number of such programmes. It may be concluded that for continuous professional growth of teachers in-service education programmes must be strengthened in the State of Orissa.

So far as doctoral research is concerned, item No.15 of the questionnaire meant for faculty members has elicited the response showing that during last two years two faculty members have been awarded Ph.D. degree and six members are involved in research work and one member is doing M.Ed. as a private candidate. Two principals are giving guidance to research scholars out of six under investigation.

In response to item Nos.15 and 17 of questionnaire 2 with regard to publication by faculty members, it has been found out
that the responses received are not very satisfactory. Only 6 teacher educators have published books for different levels viz. primary, secondary and teacher-training. Only six teacher educators have reported to have their works published in educational journals. However, two principals have got plenty of published work to their credit. By and large, it can be interpreted that facilities for professional growth, existing in T.E.I. S are not satisfactory and teacher educators should be encouraged to participate in in-service programmes and publication etc.

Only one teacher educator has visited U.S.A during the last two years in international development programme. One Principal of a T.E.I broadcasted his talk on an educational topic from Cuttack station. A few teacher educators have organised educational tours during the last two-years.

It is quite evident from the above findings that opportunities of in-service education for teacher educators are neither adequate nor proper in Orissa. Data collected reveal further that leaving a few exceptions almost all the teacher educators are not deriving benefit of National Association of Teacher Educators such as Indian Association of Teacher Educators (IATE) etc.

FACILITIES

Building

Five T.E.I. S have got buildings meant exclusively for their use whereas one T.E.I. is a part of an academic college. Except one
T.E.I. located at Balangir, all have their own buildings. At Balangir the T.E.I. is housed in a building hired for the purpose. Four T.E.I.s out of six under survey have expressed that they have got adequate buildings for training purposes. However, two T.E.I.s have inadequate space and the surroundings are far from being satisfactory. The investigator has visited each T.E.I. in order to collect first hand information regarding surroundings, adequacy, conditions essential for sanitation, water supply and other facilities desirable to conduct teacher education programme smoothly.

It may be concluded that the total environment and atmosphere of a teacher education institution has an impact on the professional values and abilities of student-teachers. In this context it may be added that mostly T.E.I.s have traditional type of buildings which are, to some extent, outdated as far as modern norms are concerned. Economy, decency, durability and functional utility should be kept in mind while making any alterations or erecting a new building. It can be interpreted on the basis of personal observation that future needs of the T.E.I.s could not be apprehended at the time of constructing the building. May be this is one of the reasons for inadequacy which is being experienced in majority of the T.E.I.s at present.
Hostel

In all the six T.E.I.s under investigation, hostel facility has been extended to student-teachers as revealed by the data collected. However the number of hostels attached to the institution and their accommodation capacity varies from institution to institution, which has been depicted in the following table (based on the collected data):

**TABLE No.13**
Showing capacity of hostels in T.E.I.s

<table>
<thead>
<tr>
<th>Particulars</th>
<th>T.E.I</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Angul</td>
</tr>
<tr>
<td>Number of hostels</td>
<td>3</td>
</tr>
<tr>
<td>Accommodation capacity</td>
<td>110</td>
</tr>
<tr>
<td>Enrolment</td>
<td>128</td>
</tr>
</tbody>
</table>

* Accommodation used by students of other courses also.

In response to item 36 of questionnaire 3, 74% student-teachers have shown their dissatisfaction so far as the existing conditions of hostels are concerned. Data collected further reveal that there is shortage of accommodation for lady teachers in hostels, which has been confirmed at the time of interview with faculty members and student-teachers. There is provision for 36, 40 and 30 seats at
Sambalpur, Cuttack and Bhubaneswar respectively for lady student-teachers to be accommodated in hostels. This indicates the need of extending hostel facility to lady teacher-trainees.

Student participation has been found in shape of hostel management (specially mess arrangements) in T.E.I.s of the State. usually boarders are managing their own mess under the supervision of hostel-superintendent. Responsibility to buy articles, keep record, audit vouchers, placing accounts on notice boards etc. is being shared by the boarders on a democratic basis. In only one T.E.I. located at Bhubaneswar which is residential in nature, all student-teachers are expected to reside in hostels.

It may be interpreted that student participation, which is a very common talk of the day all over the world must be encouraged in T.E.I.s. However, it is a good sign that there is some sort of student participation present in hostels of T.E.I.s under investigation.

Library and Readingroom

Facilities regarding library and readingroom exist in all the T.E.I.s in some form or the other as revealed by the data. However, student-teachers do not seem to be fully satisfied with the existing facilities as 50% of student-teachers have expressed their concern about the functional utility of the library, Common room and reading room. It has been further revealed through the
responses that adequate facilities lack in 78% of cases.

The table given below shows the number of books and journals available in these T.E.I.s (as collected from the data).

**TABLE No. 14**

Showing number of books and journals in T.E.I.s

<table>
<thead>
<tr>
<th>Number of</th>
<th>Angul</th>
<th>Bhuba</th>
<th>Bramha</th>
<th>Cuttack</th>
<th>Sambalpur</th>
<th>neswar</th>
<th>purl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Books</td>
<td>11,000</td>
<td>1,588</td>
<td>1,500</td>
<td>32,173</td>
<td>6,398</td>
<td>3,732</td>
<td></td>
</tr>
<tr>
<td>Journals</td>
<td>42</td>
<td>13</td>
<td>3</td>
<td>73</td>
<td>48</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

It is evident from the above table that in three T.E.I.s number of journals contributed is hardly a dozen or so, and in one T.E.I the figure appears to be heartening though it is not, because of the fact that these journals are meant for different academic courses run by the institution. In four T.E.I.s under investigation the number of books available in the library is below seven thousand, which is again disheartening to some extent.

As revealed by the data (item Nos.36 to 43 of questionnaire), it is clear that in all the six T.E.I.s untrained and unskilled people are working as Librarians, which is quite deplorable. In only one T.E.I there exists open-shelf system. Doors of the library are closed when the teaching work is suspended in
majority of the T.E.I.s. Usually libraries remain closed during the holidays. In one T.E.I the library remains open between 8-30 A.M.to 8.00 P.M.on working days except saturday.

Annual grant for the library again ranges from Rs.500 to Rs.14,000. Major portion of the grant comes from the U.G.C, and their respective departments, in the form of annual budget to buy books. Information sought for average issue of books per day reveals that on an average 50 to 60 books are issued per day. As a matter of fact acquisition of more books in the library may not yield fruitful result, unless and until the reading habit is fostered in student-teachers and teacher educators. It seems that there is need of full utilisation of the literature available in these libraries.

The data collected reveal that 69% of the total population of student-teachers have given their negative reply to the question related to the provision of other facilities such as drinking water, cycle stand etc. in T.E.I.s. It has been found that only 11% of the total population of student-teachers is provided free medical aid by the T.E.I.s. Again it can be concluded that facilities mentioned above are not up to the mark in these T.E.I.s under survey.

So far as the laboratory/workshop is concerned data reveal (item Nos.44 and 45 of questionnaire 1) that in one of the T.E.I.s there is no laboratory of any kind. However, they use the practi-
sing school's laboratory for training purpose in a limited manner. There is one science laboratory in each of the four T.E.I.s for teacher-education. In one T.E.I only, there are different laboratories for different branches of physical and biological sciences. In four T.E.I.s there are workshops pertaining to craft subjects such as tailoring, agriculture, woodwork etc. Money spent for the upkeep and maintenance of these workshops and laboratories ranges from rupees two thousand to four thousand annually except in one T.E.I where the annual expenditure is approximately rupees forty four thousand (laboratories are being used by students of different courses.)

By and large, conditions of laboratories and workshops are far from satisfactory. The quality of teacher-education cannot be improved much unless one improves the laboratory and workshop conditions and makes their maximum use. Practical work by student-teachers and demonstration of experiments by teacher educators, are the vital points of a well planned teacher-education programme.

**Audiovisual**

There are three items (15 to 17 of questionnaire 3) to assess the existing status of audio-visual education in T.E.I.s under survey. So far as the inclusion of audio-visual education in the curriculum is concerned, in only one T.E.I it has been done. In the rest T.E.I.s run by the State Department, however,
there is a general awareness to make the best use of available aids in teaching process, as revealed at the time of interview with faculty members. There is a laboratory of audio-visual aids in the T.E.I at Bhubaneswar. The data collected reveal that 45% of student-teachers face difficulty in procuring audio-visual aids for effective class-room teaching. It has been further expressed through responses to item No.22 of questionnaire 1, that practising/co-operating schools are not in a position to provide necessary facilities of aid and equipment. At the time of interview, some faculty members have indicated that specially the practising school which is not under the administrative control of the Principal of the T.E.I is mostly unwilling to allow student-teachers to use science material and equipment, particularly chemicals. It may be due to the fact that practising schools are not given any help in cash or kind by T.E.I.s for breakage and consumption of science materials.

Most common aids used for instructional purposes, in all the T.E.I.s under investigation, are maps, charts, models and apparatuses (including improvised apparatus). Use of such aids as tape recorder, projector, overhead projector, video tapes etc. for teaching purpose is almost nil in these T.E.I.s.

Other

In response to item No.50 of questionnaire 3, 30% student-teachers have said that they play games. Out of the nine games
listed in the questionnaire, most popular games are Volleyball, Football and Badminton and the least popular games are Hokey, Cricket and Basket-ball. For example, 61% of the total population of student-teachers plays volleyball but only 3% population plays hockey, which is a game of national importance. There is no qualified coach for training student teachers in games in any of the T.E.I.s under survey. It is evident that the recreational facilities are also lacking in T.E.I.s (67% of student-teachers have reported this). The data show that in majority of T.E.I.s there is no provision of organising Inter-college competitions in co-curricular activities. However, excursions and picnics are popular activities found in almost all the T.E.I.s of the State.

It may be interpreted at this point, that lack of interest in some games may be due to non-availability of requisite material, lack of interest and leadership on the part of teacher educators and lack of qualified coaches in T.E.I.s. It seems from the data collected that popular activities in which above 60% of the student-teachers participate are Drama, Gardening, and Excursion. Scouting, N.C.C and painting are the activities in which they are least interested: (only 11% student-teachers participate). Debate is also quite popular in T.E.I.s and 45% of student-teachers involve themselves in this activity. In all the six T.E.I.s under survey, there is provision of social, literary and cultural clubs or associations. Majority of student-teachers are members of one or more
than one association. However, at the time of interview, student-teachers expressed that such associations are to be streamlined and made more democratic in nature.

As revealed by the data (item Nos. 68 and 69 of questionnaire 3) Alumni Associations exist in three T.E.I.s only. Various activities undertaken by alumni associations relate to publication and cultural programme. One T.E.I. at Angul held its third annual meeting, in which three hundred ex-students of the institution participated. In another T.E.I. one opera was staged by ex-students of that institution. Two Principals of T.E.I.s, at the time of interview have stressed the need of framing a constitution for alumni association. It may be concluded that meetings were not arranged frequently on a planned basis and publication work was not given much emphasis. Publicity will have to be done among old boys of T.E.I.s and working of alumni associations will have to be improved. This is important for the simple reason that more than 80% student-teachers are not satisfied with the working of these alumni associations. In all the six T.E.I.s under investigation, there seems to be no information bureau of any kind.

Item number 26 of questionnaire 1 shows the benefits extended to faculty members. Responses indicate that Provident Fund, Pension and Medical aid are being enjoyed by the faculty members of all the T.E.I.s under survey.
On the basis of the responses received for the item No.16 of the questionnaire -2, it may be concluded that majority of teacher educators participate in celebration of national festivals. A small section of teacher educators was found involved in activities like field trips, social service, sports, proctorial work, admission work and hostel superintendentship etc.

Finance

In all the six T.E.I.\'s under investigation, the main source of income is in the form of grants received from the State or the Central Government and the University Grants Commission, as has been revealed in the responses received to the item Nos.68 to 70 of questionnaire 1. There is no question of income from private sources as all the T.E.I.\'s are managed by the State Government or the N.C.E.R.T. Grants received by these T.E.I.\'s are both recurring and non-recurring. It can be interpreted from the information received that major portion of the annual budget of a T.E.I is allocated for pay and D.A of officers, establishment and stipend of student-teachers.

Per-capita expenditure

Expenditure incurred under different heads in a T.E.I. will carry little meaning unless one calculates the per capita expenditure. Since per capita expenditure is influenced by average expenditure as well as average student strength, a comparative study of these variables will give a correct picture of the
expenditure on teacher education programme at a particular level (state or national).

The investigator collected information regarding recurring and non-recurring expenditure of all the six T.E.I.s under survey. The procedure adopted for calculation of per capita expenditure was to divide the total expenditure of T.E.I.s by the total strength of student-teachers in a particular year. Only recurring expenditure was taken into account while calculating per capita expenditure. Two T.E.I.s were excluded from such calculation for the reason that they have furnished combined figures of expenditure, which includes expenditure on other courses such as M.Ed., four year integrated courses etc. Since it was difficult to find out expenditure incurred exclusively for B.Ed. courses in these T.E.I.s, it was decided to delete them from such calculations. The following table presents the expenditure and enrolment figures, used for calculation of per capita expenditure. However, a separate study may be conducted by some one, to find out the expenditure on Teacher Education Programme at the national level keeping in mind all the variables involved.

TABLE No.15
Showing per capita expenditure in 1970-71

<table>
<thead>
<tr>
<th>T.E.I. at</th>
<th>Enrolment</th>
<th>Expenditure in Rupees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angul</td>
<td>128</td>
<td>189172.63</td>
</tr>
<tr>
<td>Bolangir</td>
<td>80</td>
<td>93696.00</td>
</tr>
<tr>
<td>Berhampur</td>
<td>112</td>
<td>97156.00</td>
</tr>
<tr>
<td>Sambalpur</td>
<td>160</td>
<td>157466.15</td>
</tr>
<tr>
<td>Total</td>
<td>490</td>
<td>542490.33</td>
</tr>
</tbody>
</table>
Per capita expenditure has been calculated for these T.E.I.s dividing total expenditure by total enrolment which comes as:

Per capita expenditure = Rs.1,130.18 per year.

Though it was not within the limits of the present study to compare, this figure of per capita expenditure for different years at the State and the National level, the investigator has noted the trend of higher investment in Teacher Education Programme in the State. The per capita expenditure calculated by the Second National Survey of Secondary Teacher Education for the year 1964-65 was Rs.365.00 per year at the national level. However, another study by some one, may be taken up later on for further investigation, taking into account the price-level which has gone up now.

In all the six T.E.I.s there is provision of awarding stipend to fifty percent student-teachers on the basis of merit. The merit list is prepared at the time of admission. However, tuition fee is not collected from a student-teacher in any of the T.E.I.s. The amount of stipend is Rs. eighty per month in T.E.I.s run by the State Government and Rupees seventyfive in the T.E.I run by the W.C.E.R.T. Some conditions have been laid down for continuance of financial aid in these T.E.I.s. In the T.E.I.s

1The Second National Survey of Secondary Teacher Education in India, New Delhi, N.C.E.R.T 1969, p. 11.
managed by the State Government, conditions are such as completion of study, bond of 5 years service and compulsory residence in hostel. However in the T.E.I. run by the N.C.E.R.T the main criterion to decide continuance of the financial aid is the progress of student-teacher at studies and his conduct and behaviour. This aid is given to T.E.I.s in the form of annual grant by the State Department and the N.C.E.R.T. In all the six T.E.I.s under survey there is a system of charging some fees other than tuition at the time of admission. Of course the amount of such fees differs from T.E.I to T.E.I ranging from Rs.45.00 to Rs.96.00. This fee is meant for games, library, common room, medical, dramatic, identity card, student-aid, community living, picnic, student council, magazine, and puja etc. From the collected data, it can be interpreted that T.E.I.s are not observing any set principles in fixing the amount of fee for different heads. Thus, there is little justification in realising such fees from student-teachers without finding out their willingness for the same. Moreover, for the same type of course and programme, there should not be variation in the amount of fees charged in different T.E.I.s.

Problems and Trends

Size of T.E.I.s and comprehensive college idea

Item No.33 of questionnaire 1, has indicated the departments or units attached to a Teacher Education Institution, which
is being presented in the following table.

### TABLE No. 16

Showing units/Departments/Institutions attached with T.E.I.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Unit/Institution</th>
<th>Angul</th>
<th>Borda-Berha</th>
<th>Bhuban</th>
<th>Cuttack</th>
<th>Samba</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Practising School</td>
<td>Boys-1</td>
<td>Boys-1</td>
<td>Boys-3</td>
<td>Boys-20</td>
<td>Boys-1</td>
</tr>
<tr>
<td></td>
<td>Girls-1</td>
<td>Girls-1</td>
<td>Girls-1</td>
<td>Girls-3</td>
<td>Girls-1</td>
<td>Girls-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Co-education</td>
<td>Co-education</td>
<td>Co-education</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>al. 1</td>
<td>al. 4</td>
<td>al. 1</td>
</tr>
</tbody>
</table>

2. Elementary Training School

3. Extension Service Department

4. Commercial School

5. Audio-visual Unit

**NB:** Usually one practising school is under the administrative control of the Principal of a T.E.I.

The idea of comprehensive colleges floated by Kothari Commission is a novel one and worth experimenting in the State of Orissa. It has been investigated that there is very little co-ordination between secondary teacher education institutions and training institutions of primary teachers on the one hand and between secondary teacher education and universities on the other...
hand. This isolation in the field of teacher education has not been conducive to the effectiveness of teacher education. At the time of interview two Principals have expressed their views in favour of comprehensive colleges. They felt the need of comprehensive colleges in the State to offer a co-ordinated training programme for all the teachers irrespective of their levels and duties.

The enrolment of T.E.I.s under investigation cannot be compared by any measurement with the colleges of education in USA or USSR (Having 6000 to 7000 strength). Higher enrolment reduces per capita expenditure without affecting quality of education and therefore small T.E.I cannot be staffed, equipped and organised efficiently and economically.

Institutional Planning

In response to the item 34 of questionnaire 1 which is related to institutional planning, it has been expressed that 50% T.E.I.s under survey have adopted institutional planning in some form or the other. Usually they hold staff meetings to decide and plan issues for the next session. However, institutional planning has not been adopted in these T.E.I.s in the true sense of the term making optimum use of existing facilities for the development and growth of the institution taking place with the help of all the human factors connected with it. i.e. teachers, students, and community. However, it is found out at the time of interview
with the faculty members that there has been a general awareness about the need of institutional planning. It is in much sharper focus today than ever before, to integrate subject teaching with pedagogical training. It is certainly a new experiment in the field of teacher-education and we are looking forward for its utility in teacher training programme. However, it is not within the scope of this study to find out the strength and weaknesses of this course.

In only one T.E.I run by the N.C.E.R.T, there is a provision for summer school-cum-correspondence course. The utility of the course in clearing the back-log of untrained teachers in the region, is undisputable. At the time of interview, a few Principals of the T.E.I.s have expressed their willingness to start this course in their institutions. Correspondence courses in content subjects can also be started to give in-service education to teachers.

Work Experience

In response to item No.18 of questionnaire 2, five T.E.I.s have reported that craft and community work has been included in the curriculum of teacher education keeping work-experience in mind. Any one craft is to be offered by a student-teacher. Faculty members have felt that these various crafts will give work-experience based on participation in productive and social activities. In these T.E.I.s work experience is being given in two forms -
productive work experience related to technology and work experience in community services and group life. It has been found out in the interview with faculty members and personal visits that workshops attached to T.E.I.s for conducting work-experience programme do not possess necessary tools and equipments. It may be interpreted that work experience as adopted in teacher education programme in Orissa, is beset with many defects and should be improved upon as early as possible.

Innovations

In response to the item meant to elicit proper machinery for innovations in T.E.I.s, majority of institutions have not given favourable reply. Shortage of staff, lack of facilities in the shape of laboratories and libraries, lack of incentives to teacher educators along with financial burden were a few difficulties reported by the T.E.I.s.