CHAPTER II

A CRITICAL REVIEW OF THE EARLIER STUDIES
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2.0.0 INTRODUCTION

A number of studies on the concept of teaching, identification of effective teaching behaviours, teacher education and on effectiveness of teachers after receiving training in the class-room situation conducted in India have been reviewed. Similar other studies related to techniques of teacher training and other aspects of teacher education have also been reviewed. The study of the related literature on teacher education in India was done with a view to understand its growth and changing patterns. The studies have been reported under the following captions.

2.1.0 A BRIEF REVIEW OF TEACHER EDUCATION IN POST-INDEPENDENCE PERIOD

In this review the development of teacher education in the post-independence era only (since 1947 to date) has been presented. A resume of the progress in the pre-independent period is omitted because the socio-political conditions in the country have changed after 1947 and any content of knowledge about teacher education in India during the days of colonial rule is
of little relevance to the present context of people's needs and aspirations. A need for parsimony in reporting makes it necessary to include only the most essential material.

In spite of the partition and its repercussions the country made good progress and educational activities moved faster. During the academic session 1947-48, the Central Institute of Education, a pioneer teacher education institution in the country, was started in Delhi and by a resolution of the Inter-University Board, a psychology wing was added to it. By 1949, the Government Training College at Allahabad was developed into the Government Central Pedagogical Institute.

In the University Education Commission's report submitted in 1948-49 it was stated that there was not much of variation between the courses in the written papers prescribed in different training institutions of the country but there was some variation about the practical work. The number of supervised lessons varied from 10 to 60. The report further stated that the training courses varied very greatly in efficiency from university to university.
With a view to improving teacher education in India the commission put forward many valuable suggestions. It recommended that the teacher educators must look at the whole course from a different angle. They must realise that the study of education at an advanced level is somewhat more than mere Education;

that theory and practice of teaching should go hand in hand;

that unintelligent following of rule-of-thumb method should be discarded;

that not less than 50 per cent of the staff should have had school teaching experience;

that the courses in the Theory of Education must be flexible and adaptable to local circumstances;

that the students should take the Master's degree in Education after some years of teaching experience;

that the original work by Professors and Lecturers in Education should not suffer from isolation and inter-university planning.

In 1950, the First Conference of all-India Training Colleges met in Baroda and it created a common
platform for training colleges of India to get together to discuss problems and seek their solutions. Next year the Second all-India Conference was held at Mysore. It observed teacher preparation in a broader perspective and substituted the word 'Education' for 'Training'. Since then workshops, seminars, symposia and conferences became a common feature in the field of teacher education.¹

In the Secondary Education Commission's report of 1953 it is recorded that there were three types of teacher training institutions in the country - Primary or Basic, Secondary, and Graduate Teacher Training Institutions. In the report it was stated that primary teacher training institutions were intended for teachers of primary schools, that the secondary teacher training institutions prepared teachers for the middle schools and graduate teacher training institutions were meant for the high/higher secondary schools. But the Commission recommended that the training institutions should be only of two types - one for those who have taken the Secondary School leaving Certificate, for

whom training should be of two years; and the other for graduates for whom the period of training should be of one academic session.

Another important recommendation of the Commission was that graduate teacher training institutions should be recognised by an affiliated to universities which should grant degrees while the training schools should be brought under the control of a separate Board and should not be under the government Department of Education. The first part of this recommendation is, by and large, being implemented by most of the universities but the other part of it has not yet been considered for implementation.2

Report of a study by an International Team on Teachers and Curricula in Secondary Schools, 1954, pointed out the following defects in the system of teachers training:

"Lack of integration in programmes of training teachers at different levels;

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insufficient co-ordination between the work done in training institutions and in schools;

inadequate conception of the role of the training institutions for different levels and consequent inadequate staffing and equipment;

the domination of external examination and its cramping effect on training programmes; and

inadequate provision for training of certain types of teachers".

In this report it was recommended that,"efforts should be made to establish articulation in the training of teachers for different school stages". 3

Some of these recommendations have been implemented but a dynamic approach has yet to be made.

In 1963 the Report of the Study Group on the Training of Elementary Teachers of the all-India Council for Elementary Education brought into focus some of its main findings, which were,

that the supply of trained teachers was not correlated to requirements;

that the location of the training institutions was more by chance than planned;

that no attention was paid to the planning of a training institution to an optimum size;

that very small institutes were poorly staffed and could not offer the variety of specialized teaching needed for a good teacher education programme; and

that there was the question of duration of courses and the mode of selection in the training schools.

A Study Team for Selected Educational Schemes was set up by the Committee on Plan Projects in May, 1961 under the leadership of Shri B.N. Jha. This team examined in detail the programmes relating to teacher training at various levels in the country and it submitted the "Report on Teacher Training" in 1964. During on the spot study, the Team observed,

that teachers of training institutions contributed nominally to educational thinking in the country;

that there was lack of laboratory facilities and teaching aids and equipments;
that very few institutions had got suitably qualified staffs;

that the school curriculum and the teacher training programme did not generally bear a close relationship because school syllabi underwent changes while syllabi of training institutions remained static;

that there was practically no room for experimentation and initiative in the teacher education programme;

that the syllabi of teacher training programmes did not state aims and objectives of teacher training;

that though there was not much variation between the courses prescribed in different training colleges, there did exist much variation in the number of prescribed practical lessons - ranging between 20 and 60; and

that there was a wide disparity in methods of examination and evaluation techniques. On the one hand, assessment was, in practice, made by the external examiners on the basis of actual performance of trainees. On the other hand, the assessment in many places was done by internal examiners and the external examiners
only checked up the assessment of the selected 25 per cent of the cases and without any further assessment forwarded their opinion about the rest of the student teachers.

Some significant events happened during the sixties. The State Institute of Education came into existence. A Department of Teacher Education was started by the National Institute of Education. Four Regional Colleges of Education were established at Ajmer, Bhopal, Bhubaneswar and Mysore. These colleges aimed at integrating the two courses - general and professional. The University of Kurukshetra also introduced a four-year integrated course. The only centre for Advanced Study in Education was set up by the U.G.C. in the Faculty of Education and Psychology in the M.S. University, Baroda.

In the Seventh Conference of all-India Association of Teachers Colleges held in June, 1964, it was proposed to establish Comprehensive College for bridging the gulf between primary and secondary teacher training.
By Resolution dated 14th July, 1964, the Indian Education Commission, popularly known as Kothari Commission was set up by the Government of India to advise on the national pattern, general principle and policies of education and survey the development of education at all stages and in all respects. The Report submitted in 1966 made various recommendations and it laid special emphasis on the training and quality of teachers for schools. In the words of the Commission itself, "The real need is action...", but the Commission overlooked the question, "What action is most desirable in respect of teacher education?" The Commission simply recommended to (i) improve and increase training facilities, (ii) improve quality of training institutions and of teacher education programmes, and (iii) set up organisational agencies for maintaining standard in teacher education.

In a nutshell, it can be said that the Commission only followed the beaten track and only drew up a long list of recommendations.

In India, education has been identified with pedagogy but it is gratifying to note that education is being given special attention and recognised as a
social science or an independent discipline. As recommended by the Indian Education Commission (1964-66), an M.A. degree in Education has been introduced at the post graduate stage by Aligarh, Kurukshetra and Kanpur Universities; Summer schools and correspondence courses in teacher education have been introduced in the country by some universities; Regional Colleges of Education and State Institutes of Education have taken the responsibility to clear up the backlog of untrained teachers; a number of state governments have set up State Boards of Teacher Education to create a bridge between the institutions of teacher education under the government Education Departments and the institutions within the fold of universities.

In the Fourth Five Year Plan (1969-74), the Planning Commission remarked that at the elementary stage, "the programmes which need special attention are: improving the quality of teacher education, training of more women teachers and teachers from the tribal communities, training of science and mathematics teachers for the middle classes and in-service training. Wherever necessary, correspondence courses will be organised for untrained teachers now working in the schools."
The State Institutes of Education will co-operate in the implementation of these programmes.

That at the secondary stage, "the main programme will be to improve standards of teacher education at this level and to organise a large in-service education programme specially for mathematics and science teachers".

That "To work out the programmes of qualitative improvement at the school stage, greater coordination will be effected between the National Council of Educational Research and Training (NCERT) and the State Institutes of Education the programmes already initiated in the fields of evaluation and guidance, curriculum construction, extension, text-book production, educational research and science education will be expanded. A number of pilot projects will be worked out and evaluated through these organisations. Training programmes for teacher educators will also be continued."

The recommendation of the Kothari Commission (1964-66) to set up a Standing Committee for Teacher

Education under the joint aegis of NCERT and UGC. Recently a National Council for Teacher Education was instituted. It, for the first time, discussed the teacher education curriculum in pre-service teacher programmes etc. It also laid down recommendations on continuing education of teachers and teacher educators. Orientation for non-formal education and administrative structures have also been discussed.

The principal objectives of teacher education according to the framework were to develop Gandhian values among the teachers, to enable them to act as agents for social change, leader of the children and guide to the community; to use and conserve environmental resources; to possess warm and positive attitude towards growing children; to develop understanding of the objectives of social education; to undertake action research and investigatory projects. These objectives are by all means comprehensive and idealistic and any one can judge that they have been formulated for being studied rather than acquired through a teacher training programme of one academic session.

The curriculum comprised, according to the report, three parts, viz., pedagogical courses (30%), working with community (20%) and content-cum-methodology and practice teaching, including related practical work (50%). The course have been suggested for the academic and vocational streams at the +2 stage separately.

The draft of the National Policy on Education (1979) of the Indian Government (Janata Government) envisaged some changes in the teacher education curriculum and emphasised the preparation of teachers for rural areas. 6

The curriculum of teacher education at the secondary stage of education will be suitably changed in order to enable the teachers to play their proper role in reforming education. Pedagogical and professional preparation for teacher in higher education should also be expanded, centres for developing curricular materials and teaching aids will be provided. Facilities for in-service training will be established, especially

for the benefit of teachers in rural areas and for both formal and non-formal systems of education (Art.18.3).\textsuperscript{7}

Study of the problems of teacher education undertaken by individual scholars in different parts of the country. S. Saikia studied the problems of teacher education at the secondary level in Assam to find out the causes of ineffectiveness of teacher training programme (at the secondary level) in that state. The study revealed that none of the trained teachers prepared lesson plans of their work. This discrepancy was attributed to the training course itself and the conditions under which a trained teacher had to work in a school.\textsuperscript{8}

Vijay Bahadur Pathak, in his study, "Teacher Education in Eastern U.P." arrived at the conclusion of his study that the apathy among the urban male graduates to take up the teaching job will leave unfilled up the vacancies in the teaching positions in the secondary schools of cities. This will be made up by trained

\textsuperscript{7} Vijay Bahadur Pathak : "Teacher Education in Eastern U.P.", p.17.

\textsuperscript{8} M.B. Buch : "A survey of research in education", p.460.
teachers from the rural areas. Naturally there will be flow of the population to the cities from the villages, resulting in the increase in urban population.\(^9\)

Pandey (1969)\(^{10}\) as the chief investigator of a National Survey of Secondary Teacher Education in India sponsored by the National Council of Educational Research and Training, studied during 1965-69 the status of secondary teacher education in the country. He covered all the states and Union territories except Orissa and Mysore. The data from these two states were contemporaneously collected by the Kothari Commission (1964-66) and Pandey utilised them in preparing his report. He used a very comprehensive questionnaire and a Teacher Data Form to collect information from the whole population of teacher education institutions. His questionnaire comprised five sections. The first two sections purported to collect identifying such data as name, location, year of establishment, nature of the institution, subjects offered by the student teachers, qualification and experience before teaching, etc.

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10. Ibid., pp. 18, 19.
The third section contained questions on the programme. Information about courses and papers taught, the duration of academic year, methods and arrangements for theory, practical teaching, community service, co-curricular activities etc. were sought. The fourth section of the questionnaire was about the resources of the institutions and the fifth about research and publication. The Teacher Data Form was intended to provide relevant information about the teacher educator, his qualification and experience, the nature and amount of work he had to do, his research and writing work etc. The major findings of the study were as follows:

In the pre-independence period there were only 51 T.E.I.'s in the whole country. In the post-independence period there was a spurt in the number. The number rose to 273 in 1965.

Teacher education of the secondary level was, by and large, under the academic control of the universities but in certain states there were also government Departments of Education exercising control over some of these institutions.
In the last few years, the report adds, one more responsibility has been added to the T.E.I.'s in the country. Besides providing pre-service education to the teachers, it is also expected of them to make provision for the in-service education of teachers by organising extension programmes.

The total output of the trained teachers in the country in the year 1964-65 was 22,111 out of a total enrolment of 25,264. The pass percentage was 88.

The total drop in the teacher education was 4% in 1964-65. However the percentage varied from 1% in Kerala to 24% in Assam. The combined total wastage in 1964-65 was 16%-4% drop-out, and 12% failure.

The report also presented the courses of study pursued in different states and universities. The report adds that, prime facie, it were the states of Assam, J and K, Rajasthan, U.P. and Gujarat which did not give any importance to the practical work arising out of the theory papers.

The number of teacher educators available was reported to be 2,543 and the teacher pupil ratio worked
out at 1:10. Of the available information, 88.71% of teacher educators had the minimum qualification prescribed for teacher educators in the secondary training colleges. The highest percentage (41.99%) was of those who were M.A., B.Ed.'s. Majority of teacher educators possessed teaching experience both at the college and school levels. The teacher educators had three types of workload, viz., teaching, supervision and guidance. The first two types of load were heavy in the case of lecturers and the last in the case of Readers and Professors.11

A dissertation under the title "Teacher Education in Manipur" was submitted in the North Eastern Hill University in part-fulfilment of the requirements of the M.A. (Education) programme in 1982-84 by L.Bimala Devi in the Department of Educational Research and studies of the same university at Nagaland campus, Kohima. The investigator had made comprehensive survey of development of teacher education of the primary as well as secondary school teachers in Manipur. A number of suggestions based on the findings of the study were

made. These include the starting of some more colleges for the education of secondary school teachers in the private and public centres, making provisions for adequate physical facilities in the form of buildings, libraries, playground, laboratories etc. in the existing institutions, improvement in the system of selection of the teacher trainees for admission, making adequate provisions for the admission of fresh candidates to teacher training institutions and discontinuing the system of admitting only the serving teachers on deputation in a phased manner, making adequate provisions for in-service education of teachers and starting of extension services developed for this purpose, revision of the teacher education curriculum/courses and giving them professional and practical tinge, replacement of traditional system of school practice teaching by a properly planned system of internship on the model of Medical and Engineering Colleges, creation of State Board of Teacher Education to devise curricular, teaching and evaluating procedure for teacher training institutions, making proper provision for the training of teachers of special subjects like music, SUPW, language, craft, physical education, improvement upon the methods of teaching by supplementing the lecture
methods with regular seminars, workshops, project work, report writing, dissertation etc. and finally improvement upon the system of examination by introducing a system of continuous, regular process of evaluation and maintenance of a cumulative record of every individual candidate in a systematic manner showing his performance in both the curricular and co-curricular activities in a continuous manner.

In the light of 10+2 educational structure at the secondary and higher secondary stages and also in the light of the provisions made in the National Policy on Education, 1986, even the most significant recommendations and suggestions made by the studies referred to earlier seem to have lost their relevance in the context of the teacher education in the state at present. Hence the further study of a deeper and comprehensive nature is urgently required to investigate into the problems of teacher education at the secondary stage in the state for making further suggestions for improvement of the existing situation.
2.2.0 STUDIES RELATED TO THE CONCEPT OF TEACHING

The concept of teaching drew its primary data from different schools of philosophical opinions in the absence of empirical data. Broudy (1963), Smith (1963, 1971), Gage (1969), and Mitra (1972) provide referential evidence to this effect. The concept of teaching, thus derived, is considered inadequate, and it has failed to explain the complex and fluid transactions featuring classroom teaching. Smith well summarised this inadequacy in the following words, "from casual observation of teaching, we come to the conclusion that actual classroom teaching thus not conform to the methods of teaching described in text-books. This conclusion has been sustained by subsequent observation. Actual teaching is so varied, so complex, so fluid as almost to defy any description whatsoever; and it certainly does not respond to the concepts of method set forth in the treatises on the subject. When we speak of method of teaching, we are not speaking of realities, but the picture of teaching we have built out of the ideas borrowed from psychology and philosophy". 12

2.2.1 STUDIES RELATED TO EFFECTIVE TEACHING BEHAVIOUR

A number of studies seeking relationship between characteristics contextual variables and teaching acts on the one hand, pupil outcomes on the other, have appeared. But the results, till date, were dismal. Morsh and Wilder (1954) after reviewing quantitative studies on teacher effectiveness published during 1900-1952, concluded that 'no single, specific, observable teacher act has yet been found whose frequency of occurrence is variably and significantly corelated with student achievement.' 13

Tiedman (1950), Barr (1955-1961), Howsam (1960), Mitzel (1960), Fattu (1962), Anderson and Hunka (1963), Medley and Mitzel (1963), Biddle (1964, 1967) and Soar (1964) have shown dissatisfaction of one kind or the other. But the evidence collected from actual teaching situations in the classroom, is just the contrary. Flanders (1967) observes, "the foregoing evidence shows that no matter what a prospective teacher hears in

education courses, he has, on the average been exposed to living models of what teaching is and can be that are basically quite directive.  

A number of studies directed at finding out teachers' behaviour in the classroom, revealed that mostly teachers are dominative, have more direct influence in the classroom. He talks more and provide very little opportunity to pupils to participate, what to speak of initiation, in the classroom discourse. Angerson (1946), Withall (1949), Hughes (1959), Flanders (1964, 1965) and Amidon and Hunter (1966) abroad; and Buch and Santhanam (1970), Pareek and Rao (1970), and Mitra Jr. (1971) in India, provide testimony to this effect. Aspy (1972) found that teacher's knowledge of learning theory is not related to their classroom performance.  

2.3.0 EARLIER STUDIES ON TECHNIQUES OF TRAINING TEACHERS  

A number of studies have been conducted on the technique of teachers training. Flanders (1967) observes that much of what is learned in education courses  

is neither conceptualized and qualified nor taught in a fashion that builds a bridge between theory and practice. 16

Desai (1968) mentions that a good deal of what is taught in training colleges is not directly useful to the trainee as prospective teacher, and a good deal of what is expected of a teacher in school is not taught in it. 17

A number of studies have been made on the techniques of observation of classroom teaching of teacher. Medley and Mitzel (1963) review a number of systems developed for observing classroom teaching. Simon and Boyers (1967, 1969) give 79 systems of observations. Rosenshine (1971) points to the increasing number of observation systems in use. At the same time, attempts were directed to conceptualize teaching, operationalise it into teaching behaviours, and to collect empirical data on teaching to validate the same. Some of the


significant work has been done by Smith (1961, 1966), Bellack (1963, 1966), Hughes (1959), Turner (1964), Gallagher (1968, 1971), Honigman (1968), Hough (1970), Flanders (1965, 1970), Nuthall (1970), Adam and Biddle (1970), and Jangira (1971). Gage (1965),\(^{18}\) justifying his research for the "desirable behaviour of teachers", expresses the optimism as follows, 'the recent upsurge in the amount and quality of research on teaching may have rendered obsolescent the dismal conclusions of previous reviews of literature'.

Biddle (1967) reviewed studies related to classroom with reference to five specific problems - coverage, methods of data collection, unit of analysis, conceptual posture, and concepts used. Teaching is viewed by Turner (1971) along three dimensions - structure, style and substance. The author provides a conceptual framework for developing teacher education strategies and determining the effectiveness.\(^{19}\)

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A number of studies had been made on the pupil-teacher relationship and its effect on the teaching and learning process. Anderson\textsuperscript{20} and his associates (1939, 1945, 1946) carried out studies relating teacher contacts and pupil behaviour. The findings as summarised by Flanders (1964)\textsuperscript{21} are... firstly, the domi-

ative and integrative contacts of the teacher set a pattern of behaviour that spreads throughout the class-

room; the behaviour of the teacher, more than that of any other individual, sets the climate of the class. The rule is that, when either type of contact predomi-

nates, domination incites further domination and inte-

gration stimulates further integration. The teacher's tendency spreads among pupils and persists even when the teacher is so longer in the classroom. Furthermore, the pattern a teacher develops in one year is likely to persist in the classroom the following year with completely different pupils. Secondly, when a teacher has a high preparation of integrative contacts, pupils show more spontaneity and initiative, voluntary social

\textsuperscript{20} Jangira, N.K., "Teacher Training and Teacher Effect-

iveness", p. 21.

\textsuperscript{21} Flanders, N.A., "Some Relationship Among Teachers Influence, Pupil Attitudes and Achievement", 1964, pp. 204-205.
contribution, and acts of problem solving. Thirdly, when a teacher has high preparation of dominative contacts, the pupils are more easily distracted from school work and show more compliance to, as well as, rejection of, teacher domination.

Flanders conducted a number of studies involving several grades and different subjects to find out the relationship between teacher influence, and pupil achievement and pupil attitudes. Flanders (1965, 1969, 1970) provided the necessary details and the conclusions can be summarised as: "Six out of seven projects, revealed that pupils have opportunity to express their ideas, and when these ideas are incorporated into learning activities, the pupils learn more and develop more positive pupil attitudes towards the teacher and the learning activities". 22

Morrison (1966) found significant relationship between teacher influence and adjusted pupil achievement scores of language usage, social study skills, and arithmetic computation and problem solving, and attitudes. Weber (1968) found pupils with teachers using

indirect influence in the classroom scoring higher on verbal creativity than pupils with teachers using direct influence.

Soar (1969), in a well designed experiment, reported several consistent results relating indirect classroom behaviour of teachers and superior growth of pupils. Coats (1966) reanalysed the relationship between pupil's attitude and achievement scores versus classroom interaction variables. Johns (1968) conducted a study to find out relationship between teacher influence and level of thought provoking questions asked by the pupils. The study reports a positive relationship between teacher influence and levels of the questions asked by the pupils.

Amidon and Powell (1966) conducted an experimental study involving four groups of 15 student teachers each. The first group had interaction analysis and seminar, and was supervised by a cooperating teacher.


trained in interaction analysis. The second group had interaction analysis and seminar, but was supervised by a cooperating teacher not trained in interaction analysis. The third group had learning theory and seminar, but was supervised by a cooperating teacher trained in interaction analysis. The fourth group had learning theory and supervised by a cooperating teacher trained in learning theory. It was found that:

(i) The student teachers who knew interaction analysis talked less, were more indirect in their use of motivating controlling behaviours, more indirect in their overall interaction patterns, use more extended indirect influence, than the student teachers who were not trained in interaction analysis; and

(ii) the student teachers whose cooperating teachers learnt interaction analysis use less extended direct influence than their counterparts.25

A number of studies had been made on various combinations of methods of teaching, human relations skills and the analysis of classroom behaviours. Lehman

(1967) found that the student teachers in experimental group used more indirect and less direct teacher behaviours than the control group in their student teaching. Hanny (1967) reports that pre-service teachers who are highly dogmatic can be taught interaction analysis and that they are able to use this system to control their behaviour, and use desirable behaviours that affect classroom climate.

A number of the studies cited above, reported effective use of feedback based on interaction analysis, singly or combined with simulated teaching skills training or micro-teaching, in modifying the behaviour of pre-service or in-service teachers in the intended direction.

A number of studies on different aspects of teacher education and their impact on classroom behaviour of teachers and taught had been made in India also. Pareek and Rao (1970) selected 50 V-grade teachers of Delhi drawn from 50 primary and middle schools.

26. Ibid., p.29.
27. Ibid., p.29.
Each teacher was observed three half hour periods and a total of 84,087 observations were collected. The results revealed that about 55% of the time was spent in teacher talk by Delhi teachers. In about 67% of the periods observed, the teachers used direct influence behaviours about twice the time they used indirect influence behaviour. Only in 11% of the observed periods the teachers used more indirect influence than the direct influence. No sex differences were reported in the study.

Buch and Santhanam (1970) observed 11 teachers teaching English to classes from VI-X. Each teacher was observed twice. In a total observation of 10 hours and 7 minutes, 14,786 observations were recorded. The teacher talk was found to be 69%, student talk 21%. In another study, involving 17 male social studies teachers of secondary schools in Baroda, teacher talk was found to be nearly 83%, with student talk about 10% and silence and confusion about 7%. In the third study, Santhanam, Qurashi and Lulla (1970), 19 women and 17 male social studies teachers were observed. The results indicate that women teachers talk about 75% while male teachers talk about 82% of the total time observed. Students in women teacher classes talk about 13%, while
in the case of students in male teachers classes talk 0.5% of the time.

Pareek and Rao (1971) provided a ten day training in interaction analysis to V grade teachers of Delhi to modify their classroom interaction patterns. Both experimental and control groups of teachers were observed before and after training. Post training observations were collected up to a period of 6 months after the training. The experimental group of teachers reported to have modified their classroom behaviour patterns from direct to indirect and maintain them consistently.

Nath (1971) conducted an experiment to study the effect of feedback based on interaction analysis using Flanders Interaction Analysis Category System, and found that the experimental group, after training in interaction analysis, talked less, had higher i/i+d ratios, and higher pupil initiation, than the control group.

Such studies in classroom interaction have been initiated to understand teaching as it goes on the classroom. Attempts have also been made to identify
effective teaching behaviour patterns and modify classroom behaviour of teachers accordingly. The studies, however, are scanty within the broad framework of teaching. Concerted attempts involving imaginative research on teaching and teacher education is a prerequisite to accomplish the goal of classroom instruction since destiny of India is being shaped in her classrooms.29

No such studies on teacher education and related aspects have been made in Manipur so far. Only some numerical data concerning the number and percentage of trained teachers are available in the report of the first educational survey. According to the survey report, about 84% of the teachers in Manipur are working in the rural areas and the remaining are in the urban area. About 60% teachers are working in Government schools. Another 31.08% are working in private aided schools. About one tenth (9.57%) of teachers covered under the survey are female, of these more than 40% are working in urban areas while the percentage of male teachers is only 13.39%. More than half of the female

teachers (55.04%) are employed in Government schools. Another 31.30% and 13.66% are employed in private aided and unaided schools respectively. Almost the same trend holds good for male teachers. 30

The Table(No. 2.1) given in the survey report (1972-73) conducted by NCERT in Manipur and published by the Education Directorate of Government of Manipur indicates the number of school teachers serving in the rural and urban areas of district cluster No. 1 consisting of Imphal West, Imphal East, Bishenpur (now a full-fledged district) and Thoubal (now a full-fledged district) sub-divisions.

As far as the distribution of teachers in different types of schools is concerned, 48.73% of teachers working in the primary schools are teaching in the schools consisting of only class I and II. Corresponding percentages for other types of schools are considerably lower. There is not much difference between percentages of teachers working in U.J.B., Middle and High schools. Teachers working in rural lower primary

30. The Report of the Survey of Education in Manipur conducted by NCERT, New Delhi, Published by Directorate of Education, Govt. of Manipur, 1972-73, pp.57.
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schools constitute a higher percentage (53.72%) than the teachers working in urban area (22.68%). This position is just the reverse for schools having classes X and XI as the highest classes. The largest number of teachers at the primary level are working in the Government schools in both the rural as well as urban. The report classifies the teachers on the basis of their workload at primary, middle and secondary stages. Out of total teachers working in Manipur, 67.34% are teaching in either lower primary schools or upgraded junior basic schools. These teachers are classified as purely primary stage teachers, that is schools having classes not beyond class V. The remaining teachers teach predominantly in middle, secondary or higher secondary schools which have classes of more than one stage. It has been observed that in such institutions teachers teach classes of more than one stage. Classification of such teachers has been done as primary, middle or secondary stage teachers accordingly as they teach predominantly at the primary, middle and secondary stages respectively. There are 75.50%, 15.18% and 9.22% teachers classified as teaching predominantly at primary, middle and secondary stages respectively. Table (No. 2.2) of the report gives this detail.
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<td>Primary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusively</td>
<td>4,975</td>
<td>1,614</td>
<td>674</td>
<td>7,263</td>
<td></td>
</tr>
<tr>
<td>Predominantly</td>
<td>503</td>
<td>289</td>
<td>89</td>
<td>881</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5,478</td>
<td>1,903</td>
<td>763</td>
<td>8,144</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(84.67)</td>
<td>(56.76)</td>
<td>(79.14)</td>
<td>(75.50)</td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predominantly</td>
<td>744</td>
<td>744</td>
<td>149</td>
<td>1,637</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(11.50)</td>
<td>(22.19)</td>
<td>(15.46)</td>
<td>(15.18)</td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predominantly</td>
<td>247</td>
<td>697</td>
<td>51</td>
<td>995</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3.82)</td>
<td>(20.79)</td>
<td>(5.29)</td>
<td>(9.22)</td>
<td></td>
</tr>
<tr>
<td>N.R.</td>
<td>1</td>
<td>9</td>
<td>1</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.26)</td>
<td>(0.10)</td>
<td>(0.10)</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>6,470</td>
<td>3,353</td>
<td>964</td>
<td>10,787</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td></td>
</tr>
</tbody>
</table>

Distribution of the teachers by management and stagewise of which they are teaching predominantly indicates that the highest percentage of primary and secondary schools is from private aided schools.

2.4.0 EDUCATIONAL QUALIFICATION OF TEACHERS WORKING IN MANIPUR:

An analysis of teachers in the schools of Manipur based upon the educational qualifications in the survey report (1972-73) reveals that about half of the teachers serving in the schools of the state are only middle-pass. This is due to the fact that still there are a large number of lower primary schools having only two classes still exist in the state. The minimum qualifications required for teachers to teach in these schools is middle pass. The percentages of higher secondary pass, graduate or post-graduate teachers are comparatively very low. Most of the middle pass teachers i.e., 94% of the total middle pass teachers are serving in the rural schools. This indicates the concentration of the middle pass and below middle pass teachers in the rural area. It is clear that the teachers with these qualifications are not many in the urban areas. Matric, graduate and post-graduate teachers employed
in the schools of urban areas form a very high percentage.

From the findings of the survey report, it is also clear that middle pass teachers in government schools constitute the highest percentage (58.79%) as compared to middle pass teachers in private aided (33.31%) and unaided schools (47.30%). The percentage of teachers with the middle pass qualification is the lowest for teachers working in the government schools. It is due to the fact that more than three-fourths (76.89%) of the teachers of government schools are working either in the lower primary schools or upgraded junior basic schools.  

2.4.1 STATUS OF TRAINED AND UNTRAINED TEACHERS IN MANIPUR:

According to the findings of the survey report of NCERT (1972-73) the distribution of untrained teachers with different qualifications, gives an idea of the extent of the shortage of trained teachers under

each category. Among the teachers having qualification with below middle, middle, matric, higher secondary and intermediate pass qualifications, 53.46%, 42.38%, 57.10%, 73.72% and 69.09% respectively are trained. Percentages for untrained graduates and post-graduate teachers are 75.87% and 58.33% respectively. The report also reveals the fact that the percentage of untrained teachers employed in urban areas, is higher than that of untrained teachers serving in the schools of rural areas. If analysed sex-wise, the female teachers have a better academic attainment than male teachers, but percentage of untrained teachers is higher among the females than in the male teachers. About 64% of the female teachers are untrained whereas male untrained teachers constitute 53.28% only. The following Table (No. 2.3) given in the survey report indicates the percentage of trained teachers on the basis of the nature of the areas in which the school is located and also according to the nature of the management of the school.
<table>
<thead>
<tr>
<th>Professional qualifications</th>
<th>Total</th>
<th>Rural</th>
<th>Urban</th>
<th>Govt.</th>
<th>Pvt. aided</th>
<th>Pvt. unaiderd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untrained</td>
<td>5,862</td>
<td>4,863</td>
<td>999</td>
<td>2,351</td>
<td>2,624</td>
<td>887</td>
</tr>
<tr>
<td></td>
<td>(54.34)</td>
<td>(53.73)</td>
<td>(57.5)</td>
<td>(35.34)</td>
<td>(78.26)</td>
<td>(92.01)</td>
</tr>
<tr>
<td>Trained Undergraduate</td>
<td>4,483</td>
<td>3,953</td>
<td>530</td>
<td>3,926</td>
<td>490</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>(41.56)</td>
<td>(43.67)</td>
<td>(30.51)</td>
<td>(60.68)</td>
<td>(14.61)</td>
<td>(6.95)</td>
</tr>
<tr>
<td>Graduate</td>
<td>412</td>
<td>213</td>
<td>199</td>
<td>179</td>
<td>244</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>(3.82)</td>
<td>(2.35)</td>
<td>(21.46)</td>
<td>(2.76)</td>
<td>(6.68)</td>
<td>(0.10)</td>
</tr>
<tr>
<td>Post-graduate</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(0.06)</td>
<td>(0.23)</td>
<td>(0.08)</td>
<td>(0.06)</td>
<td>(0.10)</td>
</tr>
<tr>
<td>Others</td>
<td>22</td>
<td>17</td>
<td>5</td>
<td>9</td>
<td>13</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(0.20)</td>
<td>(0.19)</td>
<td>(0.20)</td>
<td>(0.14)</td>
<td>(0.39)</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10,787</td>
<td>9,050</td>
<td>1,737</td>
<td>6,470</td>
<td>3,253</td>
<td>964</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
</tr>
</tbody>
</table>

The above Table No. 2.3 indicates that there are fewer trained teachers in government schools (34%), whereas percentage of untrained teachers constitutes 78.26% and 92.0% in case of private aided and unaided schools respectively. Secondly, government schools have highest percentage (60.68%) of trained at the under-graduate level.  

2.5.0 EDUCATIONAL DISCIPLINE OF POST-GRADUATE TEACHERS :

According to the survey report out of 264 post-graduate teachers (1972-73) 21.21% had offered Political Science and 15.91% History in their post-graduate classes. Among the school teachers, having post-graduate degrees in Social Sciences, 9.09% had offered Economics, 8.71% Geography, 7.95% English and 4.55% Hindi in their post-graduate classes. Among the various science subjects, Zoology had been offered by more teachers(6.06%) as compared to Physics (1.52%), Chemistry (2.64%) and Botany (2.65%). Post-graduate teachers in every subject working in the schools of urban areas exceed in number than the teachers of rural areas except in English, Geography and Political Science.

32. Ibid., pp.58,59.
Most of the post-graduate teachers are working either in high schools or higher secondary schools. Some of them are also teaching in lower primary and middle schools. Teachers teaching in lower primary schools had offered Hindi, Bengali, Political Science and Education at the B.A. level. Post-graduate teachers working in primary schools had offered Geography, Political Science, Economics, Mathematics and Commerce. Number of post-graduate teachers in every subject is more in higher secondary schools than the teachers working in high schools. As far as the science teachers are concerned, they formed only 14.10% of the total teachers serving in Manipur. They were teaching science in different classes of school in 1972-73.

"Teachers who had studied science up to middle class constituted 24.79% of the total teachers. Majority of them were teaching science up to class V. Two teachers with these qualifications were teaching science up to class X. Out of 783 teachers who had studied science up to high school/higher secondary/intermediate, 56 and 6 teachers were teaching science up to class X and XI respectively. The remaining teachers were teaching science up to class V or VIII". The survey report observes, "Out of 51 teachers teaching science up to
class XI, 43.4% are post-graduates, 41.18% graduates and 13.72% are under-graduates with science subjects. About 2% of teachers had not studied science but they were teaching it. Qualified teachers teaching science upto class X constituted 68.42%. Among the unqualified teachers 1.05% were only middle pass, 22.11% are only high school pass and 9.80% are higher secondary or intermediate pass. Percentage of teachers who had not studied science at all but are teaching it in various classes is higher for classes V and VIII as compared to that for classes X and XI.\textsuperscript{33}

The Table(No. 2.4) given in the survey report shows the qualification and classwise distribution of the science teachers in Manipur as it existed in 1972-73.

The Table No. 2.4 shows that there are only 14.10% of teachers in Manipur for teaching science in various classes. Only 24.79% of the total teachers have studied science upto middle class. Majority of them teach upto class V. Two teachers with these qualifications are teaching science upto class X. Out of

\textsuperscript{33} Ibid., pp. 59, 60.
<table>
<thead>
<tr>
<th>Science qualification</th>
<th>NR</th>
<th>V</th>
<th>Teaching Science upto class</th>
<th>VIII</th>
<th>X</th>
<th>XI</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>1</td>
<td></td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>(27.27)</td>
<td>(0.13)</td>
<td></td>
<td></td>
<td>(0.53)</td>
<td>(1.86)</td>
<td>(0.39)</td>
</tr>
<tr>
<td>Middle</td>
<td>1</td>
<td>314</td>
<td>60</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>377</td>
</tr>
<tr>
<td></td>
<td>(9.09)</td>
<td>(40.67)</td>
<td>(12.07)</td>
<td>(1.05)</td>
<td>-</td>
<td>-</td>
<td>(24.79)</td>
</tr>
<tr>
<td>High School</td>
<td>4</td>
<td>366</td>
<td>270</td>
<td>42</td>
<td>1</td>
<td>-</td>
<td>683</td>
</tr>
<tr>
<td></td>
<td>(36.36)</td>
<td>(47.41)</td>
<td>(54.33)</td>
<td>(22.11)</td>
<td>(1.88)</td>
<td>-</td>
<td>(44.99)</td>
</tr>
<tr>
<td>Hr. Secondary</td>
<td>-</td>
<td>13</td>
<td>26</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>(1.68)</td>
<td>(5.23)</td>
<td>(1.05)</td>
<td>(5.88)</td>
<td>-</td>
<td>(2.89)</td>
</tr>
<tr>
<td>Intermediate</td>
<td>1</td>
<td>2</td>
<td>39</td>
<td>12</td>
<td>2</td>
<td>-</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>(9.09)</td>
<td>(0.26)</td>
<td>(7.85)</td>
<td>(6.32)</td>
<td>(3.92)</td>
<td>-</td>
<td>(3.68)</td>
</tr>
<tr>
<td>B.Sc.</td>
<td>2</td>
<td>11</td>
<td>82</td>
<td>120</td>
<td>21</td>
<td>-</td>
<td>236</td>
</tr>
<tr>
<td></td>
<td>(18.18)</td>
<td>(1.42)</td>
<td>(16.50)</td>
<td>(63.16)</td>
<td>(41.18)</td>
<td>-</td>
<td>(15.52)</td>
</tr>
<tr>
<td>M.Sc.</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>10</td>
<td>22</td>
<td>-</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>(0.20)</td>
<td>(5.26)</td>
<td>(43.14)</td>
<td>-</td>
<td>(2.17)</td>
</tr>
<tr>
<td>No Science</td>
<td>-</td>
<td>65</td>
<td>19</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>(8.42)</td>
<td>(3.82)</td>
<td>(0.53)</td>
<td>(1.96)</td>
<td>-</td>
<td>(5.65)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>11</td>
<td>772</td>
<td>497</td>
<td>190</td>
<td>51</td>
<td>1</td>
<td>1,521</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td></td>
</tr>
</tbody>
</table>

783 teachers who have studied science upto high/higher secondary, 56 and 6 teachers are teaching science upto class X and class XI respectively. The remaining teachers are teaching science upto class V or VIII. 43.14% of the teachers teaching science upto class XI are post-graduates. Only 41.18% of them are graduates and 13.72% are undergraduates with science subjects. About 2% of teachers are teaching science without science qualifications. The percentage of qualified teachers teaching science upto class X is 68.42%.

Position of science teaching in the urban areas by qualified teachers is better than that in the rural areas. It is observed that percentage of teachers who studied science upto higher secondary/intermediate, graduate and post-graduate levels are higher in this area than their respective percentages for the rural area. Likewise the percentage of qualified teachers teaching science in government schools is higher than that in the private aided schools.

34. Ibid., p.60.
2.6.0 Teaching Experience of Teachers

According to the survey report of 1972-73, one fourths of teachers of Manipur have the teaching experience 12 to 14 years. The percentage of teachers having teaching experience of 9 to 11 years is 19.26%.

There is a steep fall in the frequencies for teaching experience beyond 14 years. The highest percentage of teachers of government schools have teaching experience between 12 to 14 years, whereas it is 3 to 5 years in the case of teachers from private aided and unaided schools. There are 78.2% of teachers with experience of more than 8 years in government schools as compared to those in private aided (37.97%) and private unaided (22.96%) schools.

2.7.0 Professional Growth of Teachers

The survey report 1972-73 of NCERT reveals that 88.62% of teachers were deputed for higher studies, 91.04% of such teachers came from the urban areas and 86.3% from rural areas. The difference in the percentages for rural and urban areas indicates that teachers working in urban areas are keener for their professional growth than their counterparts in the rural areas.
About three-fourths of teachers were deputed with full salary for higher education, 23.48% of teachers were deputed with partly full and partly half salary. About (0.32%) of teachers were deputed without salary. The teachers deputed for in-service training constituted a lower percentage (20.80%) than the teachers deputed for higher education. One of the possible results for such a low percentage may be the lack of facilities for in-service training within that state. There are more teachers (23.15%) from rural areas who attended the in-service training than the teachers from urban areas (18.28%). The highest percentage of teachers who have attended in-service training were from private and unaided schools (27.48%) and lowest from private aided schools (20.30%). Thus the rural areas are given more facilities than urban teachers irrespective of the management in which they are working.\footnote{Ibid., p.64.}

An analysis of the nature of appointment of teachers of Manipur has been made by the survey report indicates that majority of the teachers working in high and higher secondary schools (65.46%) are permanent, 3.85% are quasi-permanent, 22.82% are temporary and 2.07% are ad-hoc appointees.
An analysis of the age group of the untrained teachers as presented by the survey report 1972-73 of NCERT reveals the fact that 58% of untrained teachers fall under the age group of 21 to 30 years. And that 18.54% of them are of the age 31 to 35 years. Female untrained teachers of below 31 years constitute 80.58% of the total untrained teachers. This percentage is comparatively higher than that for the male teachers (62%) belonging to the same age group. The teachers of the age below 31 years constitute 88.16% of the teachers working in private unaided schools. This percentage is 73.52% in the private aided schools and 44.54% in common schools respectively. A quite good number of untrained teachers are above the age of 30 years of serving in government schools. The model age-group of teachers in the state is observed to be 31.35%. The model age-group for rural teachers also is 26.92%. The corresponding model age-group for urban teachers is 26 to 30. There is a steep fall in the percentage of teachers in the age-group beyond 35 years. The Table No.2.5 gives the distribution of teachers in Manipur according to their minimum possible age at joining the profession.
Table - 2.5

<table>
<thead>
<tr>
<th>Minimum age at joining (in years)</th>
<th>Numbers of teachers in</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All areas together</td>
<td>Rural areas</td>
<td>Urban areas</td>
<td></td>
</tr>
<tr>
<td>Less than 14</td>
<td>1,365</td>
<td>1,197</td>
<td>168</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(13.94)</td>
<td>(14.65)</td>
<td>(10.38)</td>
<td></td>
</tr>
<tr>
<td>14-18</td>
<td>4,457</td>
<td>3,705</td>
<td>752</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(45.53)</td>
<td>(45.34)</td>
<td>(46.45)</td>
<td></td>
</tr>
<tr>
<td>19-35</td>
<td>3,941</td>
<td>3,253</td>
<td>688</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(40.26)</td>
<td>(39.81)</td>
<td>(42.50)</td>
<td></td>
</tr>
<tr>
<td>36-45</td>
<td>26</td>
<td>16</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.26)</td>
<td>(0.20)</td>
<td>(0.62)</td>
<td></td>
</tr>
<tr>
<td>More than 45</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>-</td>
<td>(0.05)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td></td>
</tr>
</tbody>
</table>

From the Table No. 2.5 it is clear that 13.94% of teachers joined the profession too early before even 14 years of age. The percentage of such teachers is more in the rural areas (14.6%) as against that in urban areas (10.38%). Another (45.53%) of teachers joined the profession rather early between the age of 14 and 18 years. About 40% of teachers entered the profession at the right time. Their percentage in the urban areas is 42.50% and in the rural areas is 39.81%. The percentage of teachers for joining the profession after the age of 33 is very low.

Thus the study made by the survey team of NCERT is fairly comprehensive as it covers the qualifications, training opportunities for professional growth, teaching experience and age-groups of school teachers serving in Manipur.