

Teacher Education

A Trend Report

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The main purpose of research in teacher education should be the improvement of programmes of the training and education of teachers for our schools. Departments of education in various universities, colleges of education at various levels, training colleges, training departments as parts of arts/science degree colleges, and specialised teacher training institutions like those for physical education, home science, technical schools, provide postgraduate and undergraduate courses in the preparation of teachers for elementary, middle and secondary schools. A comparatively new but productive field, teacher education, is open to many kinds of research — research into the goals of teacher education, the ways of teaching those goals in terms of curriculum, syllabus and activities, into the methods and sources of educating teachers and the relative merits of the one or two year professional training after general education and the concurrent general and teacher education courses.

With the rapid expansion of school education and the phenomenal rise in pupil enrolments, the demand for teachers has greatly increased. More and more educated persons — many of them the first generation of the educated in their families — have taken to the teacher career more out of necessity and availability of job than out of love or aptitude for teaching. Also, a large number of teacher education institutions with meagre facilities and indifferent personnel have sprung up. As a consequence, the standards have gone down. It should be, thus, the job of a researcher in the field of teacher education to take up such studies as would help to understand the various aspects of teacher education better.

The amount of research reported in this field and on which this report is based is not very large. Also, all the research is not characterised by high quality. Much of it seems to have been undertaken because it was convenient for the researcher to collect data from students, teachers and teacher educa-

tion institutions to which most of the researchers in this area belong.

Various types of studies may be categorised under teacher education. Some, like problems of teachers in schools, workload of teachers, etc., are relevant though remotely related. As teacher education itself is an applied field, many studies which have been classified elsewhere, are closer to that particular area, but have great bearing on teacher education programmes.

Further, there are many ways in which the varied assortment of studies in teacher education can be classified. It is difficult and unnecessary to argue in favour of one classification as against another. Each classification has its merits. The classification done by Lulla and Singh in Buch (1974) is as follows :

- Area I : Selection criteria, abilities and qualities of teachers.
- Area II : Preservice and inservice training of teachers.
- Area III : Workload, job expectations and difficulties experienced by teachers.
- Area IV : Procedures and practices of teacher education in India.
- Area V : Personality variables of teachers.

The classification was based on the research work that had already been done and that was being reviewed. The system of classification was neat and clear cut.

However, in line with the general approach to this problem being followed abroad of late, it seems appropriate to adopt a systems approach. Accordingly, we will discuss the work done under the following four headings :

- (a) Contextual variables : including history and development of teacher education, surveys of its present status and future plans.

- (b) Input variables : Under this general heading, a range of studies on student teacher and teacher characteristics will be considered. The subheadings under which various studies will be grouped, arbitrarily, will be : social origins and status of teachers, aptitude and occupational choice, selection, prediction of abilities, intellectual abilities, personality characteristics, attitudes and values, teacher roles, needs and problems of teachers, workload.
- (c) The process of teacher education : teacher education institution — overall studies, environments for learning, curriculum, teaching practice, educational technology-microteaching, programmed learning, teaching methods.
- (d) The outputs of teacher education : Miscellaneous studies under this will have the sub-categories like evaluation, follow-up studies, wastage, problems, job satisfaction.

The four broad categories are the standard categories in systems analysis. The subheadings are pragmatic and more or less based on the appropriate areas of research work reviewed here. It must be admitted that the grouping as well as assignment of a certain study to a particular category are quite arbitrary. It is no use explaining the difficulties that beset one who attempts such classifications as the scholars understand these problems very well. Suffice it to say that no study belongs only to one heading, that with the overlap among the headings and with most studies encompassing a number of variables, many studies could have rightly been allocated to more than one subheading or heading.

CONTEXTUAL VARIABLES

A knowledge of the history and development of teacher education, institutions and programmes is of immense help in understanding the present problems and achievements. Researchers have encompassed, usually, their local geographical regions—states or districts, and secondary or elementary teacher education.

On the basis of data from the secondary teacher training institutions in the five universities of Gujarat, Desai (1974) reported phenomenal increase in number of institutions, teacher trainees, percentage of trained teachers, facilities for inservice education, expenditure, etc., from 1947 to 1972. In a critical study of the development of teacher education in Rajasthan,

Bhardwaj (1974) gathered information about administration, enrolment, curriculum, facilities, activities, methods and such other relevant aspects. Similar comprehensive studies were made on teacher education for secondary education in Kerala by Joseph (1967), and in Assam by Saikia (1971). Banerji (1967) confined his investigation to training of only primary teachers, but extended the scope to whole of India, while Mallaya (1968) studied teacher training at all levels — preschool, primary and secondary — but limited to Madhya Pradesh only.

A number of general surveys of the conditions about teacher education have been undertaken mainly by state organisations. Arora et al. of the NCERT conducted a National Survey of Teacher Education at elementary level in 1974 while a similar survey was earlier undertaken by Mehra in 1970.

A second national survey of secondary teacher education in India was made by Pandey at NCERT, in 1969, which brought out detailed information about various aspects of the programmes and institutions of teacher education at that level.

The Educational Survey Unit, NCERT, 1967 interviewed five percent of the rural women teachers in Rajasthan and provided biographical data about them.

The same unit made a survey in 1968 of all colleges and institutes of physical education in India.

The State Institute of Education, Maharashtra (1965) made a status study of preprimary training colleges in Maharashtra. The State Institute of Education of the neighbouring state of Gujarat (1969) reported the information gathered from a survey of all the primary teachers' training institutions of Gujarat state, while in the east Singha (1967) conducted a survey of craft education in the higher secondary schools and teachers' colleges in West Bengal.

In all these surveys, the only instrument used has been a questionnaire, supplemented occasionally by a few interviews.

The programmes of inservice education of teachers have attracted the attention of some investigators. Shankar (1969) in his study of the impact of extension service departments on school improvement in Haryana found that while there were some positive results, they were not commensurate with the expenditure made. He brought out the need of well planned follow-up programmes. Srivastava (1966) made a more ambitious study in which after tracing the growth of organisation of inservice programmes in India, she attempted to locate their

strengths and weaknesses and their impact on teachers' attitudes and on secondary schools. The State Institute of Education, Maharashtra (1971) found out the inservice needs of headmasters of rural primary schools in Poona district. Such a survey should be considered very useful and relevant as it is specific with regard to a geographical region, level of school and type of personnel.

The only comparative study of Chilana (1973) in this area has brought out some features of the programmes of inservice education of elementary school teachers in India and the Philippines. The study reports that the organisation of these programmes is more centralised in Philippines.

The objectives of all these surveys and historical studies have primarily been collection of information. Ostensibly, they also aimed at making suggestions for improvement, but this aim does not seem to have been fulfilled in most cases. A careful study of history, development and present position should indicate steps and measures to be taken in order to make changes in future. This requires a sense of history, skill and ability of analysis and insight and intensive logical thinking. Mere narration of facts is only one aspect of history, but learning valid lessons from them is another, probably more important part. It would do us well if researchers kept this in view while planning survey and historical studies.

INPUT VARIABLES

It was difficult to decide the types of studies that should be included under this broad category. It seemed appropriate that the social origins of teachers, selection procedures of teacher trainees, aptitude and occupational choice, intellectual and personality qualities of teachers and their attitudes and roles were the inputs in teacher education. It is rare that one can pinpoint a study exclusively for any one of these variables and therefore, an element of arbitrariness has entered into the allocation of studies into any of these categories. The following report thus suffers from the implied limitations.

Social origins and status of teachers :

Venkatarayappa and Mukta (1971) made a sociological study of primary school teachers in Mysore city while Singh and Bhatnagar (1966) conducted a pilot study on the status of elementary school teachers in Bulandshahar district of Uttar Pradesh. The former studied different aspects of the life of the primary school teacher, namely, school, family, community, economic conditions, and his attitude towards certain social problems. The latter also looked

into the economic conditions and educational background of the teachers. Both used questionnaires for collecting the data. Aaron and others (1969) made an interesting comparative study of the rural and urban schools with reference to the socio-psychological conditions of the pupils and the teachers. A combination of systematic area sampling, stratified sampling and cluster sampling was adopted. The variables of motivation to achieve, attitude towards modernisation, creative ability, values, interest and academic and domestic problems were studied for pupils and teachers. The subjects for Marr and Sabharwal (1968) and Tiwari (1968) were student teachers for the former, i.e., B.Ed. students of Central Institute of Education, Delhi and for the latter, those of all the fifty primary teacher training institutes of Madhya Pradesh. The former concentrated on the socio-economic background, motivation to teach, job aspirations and expectations of conditions in the jobs of the student teachers. The latter's main focus was on culture — the cultural background and the necessary cultural training of the pupil teachers, finding the extent to which the training programme is culture oriented and determination of relation between the cultural background and the teaching efficiency. Naidu (1974) analysed the major social contours of teaching profession at the secondary levels with reference to women teachers.

Teacher educators working in elementary teacher training institutions have been the subjects of two studies, namely, SIE, Gujarat (1965) and Chopra (1969). Both used questionnaires to collect information about their socio-economic and educational backgrounds.

It will thus be seen that research in this area has included various categories of personnel, teachers, student teachers and teacher educators.

Selection, prediction, aptitude and occupational choice :

Teaching aptitude has interested many researchers. Preparation and standardisation of tests for selection of students for teacher education courses has attracted them quite widely. Lists of the qualities of good teachers — intellectual and personality — have been prepared. Various types of psychometric procedures have been used. Kulandaivel and Rao (1968) analysed the qualities of a good teacher (and a good student) as rated by students. Pandya (1972) prepared test items to measure the different traits necessary to become an effective teacher. Rajagopalan (1975) identified successful, average and poor teach-

ers of English at school and found the relationship between success and certain environment factors, as sex, age, etc.

Debnath (1971) attempted to find out some determinants and correlates (age, experience, academic achievement and professional training) of teaching efficiency. The efficiency of the method of analytical judgment based on critical observation of a lesson, in measuring teaching efficiency was also examined. Deva (1966) constructed a student teacher rating scale through Flanagan's critical incidents technique, and used it as a criterion measure of student teaching success. He selected intelligence, social adjustment, socio-economic status and academic achievement as predictors of teaching ability. Dosajh (1956) tested the efficiency of imagination and maturity as indicators of success in teaching. Jayamma (1962) developed an inventory for predicting teacher efficiency of primary school teachers.

Prasad (1970) developed a Teacher Efficiency Observation Schedule for evaluating the professional efficiency of primary school teachers, both male and female, working in Madhya Pradesh. Efficiency was seen in classroom teaching, in organising cocurricular activities and in school-community relationship. The evaluation of a teacher was done on presage criterion (intelligence), on process criterion (observation of actual teaching) and on product criterion (teaching aptitude). Suraj (1965) made an assessment of the relationships existing between teacher trainees' intellectual efficiency, self acceptance and skill in teaching.

An earlier study of Adaval (1952) investigated into the qualities of teachers under training. The aim was to find out the specific qualities needed to make the teacher successful and the way in which the training colleges equip them for those requirements. Anand (1961) tested the usefulness of some projective tools in the assessment of qualities relevant to success in teaching. This study collected adequate teacher competence measures and used them for validating the projective tests. Sharma (1969) developed a test in Hindi for measuring teaching aptitude of elementary school teachers. Pandey (1968) also developed a tool for use as teaching aptitude test for selection purposes in the Hindi medium institutions of teacher education for primary level. Shah (1962) developed an aptitude test battery for secondary school teachers. The battery of tests was formed with five subtests — mental ability, attitude towards children, adaptability, professional information and interest in the profession. Sherry (1964) prepared a battery of psycho-

logical tests, consisting of measures of intelligence, personality, interest and attitude, for prediction of success in teaching. Bhattacharya and Shah (1966) developed a teacher efficiency inventory to be used for the selection of primary and secondary school teachers.

Bharadwaj (1959) found out the vocational interest patterns of students (both male and female) taking teacher education courses for teaching in the higher secondary schools in Uttar Pradesh. This was done with the help of occupational and vocational scales which were combined into interest record.

Gupta (1971) studied the existing admission procedures in all the 1131 elementary and 375 secondary teacher training institutions in India with a view to suggesting a suitable selection procedure.

Intellectual abilities :

The intellectual abilities of teacher trainees as well as teachers are important inputs in teacher education. Mathur (1966) made a comparative study of levels of intelligence among professional groups — entrants to courses of engineering, medicine, law and teaching. Mean I.Q.'s of teacher trainees were found to be the lowest. Singh (1970) in a study of the teacher trainees' performance in relation to certain intellectual abilities attempted to locate certain intellectual and non-intellectual variables related to the performance in school subjects and teaching skill of the postgraduate teacher trainees of the Punjab. Banerji (1956a) worked on a sample of the student teachers of Central Pedagogical Institute, Allahabad, to ascertain to what extent practice teaching and theoretical studies of a teacher education course were related to general intelligence and teaching aptitude as measured by objective tests. The Bombay Municipal Corporation (1957) made a pilot study of the level of intelligence of Marathi and Gujarati teachers in municipal schools with a view to finding out the possibility and usefulness of introducing tests of general ability in the selection, recruitment and promotion of primary teachers.

Personality characteristics :

Some researchers have attempted to isolate the personality structure of good and poor teachers. A few studies are comprehensive, while a few others have concentrated on specific aspects and dimensions in personality assessment. Kaul (1972) made a factorial study of certain personality variables of popular teachers in secondary schools with the objectives of sorting out the differentiating personality traits (Cattell's) and (Sprangerian values) of popular and

unpopular teachers, of extracting and interpreting the common factors of the differentiating personality traits and values of popular teachers and found out the effectiveness of the popular teachers with respect to attitude towards teaching, public examination results of their students and the appraisal of their work as teachers. Dwivedi (1970) studied the personality structure (mental abilities, attitude towards each other, and values) of teachers and students (boys and girls) and differences and relationship between them. Chhaya (1974) compared effective and ineffective teachers with respect to personality adjustment, attitude towards teaching, interest in teaching, emotional stability, extraversion-introversion and authoritarianism. Pandey (1973) standardised an adjustment (in five areas — health, home-social, economic, institutional and ethical) inventory for secondary school teachers and found its relationship with teaching efficiency. Khatri (1973) developed a self concept inventory in Hindi and measured self concept of primary, secondary and college teachers. Relationships between self concept and adjustment of the three categories of teachers were studied and compared.

Chatterji (1966) made an investigation into the crucial difference between primary and secondary school teachers on the one hand and non-teacher employees of similar job status (clerks, assistants, overseers, nurses, etc.) in terms of their identification with significant childhood authority figures, e.g. discordance with and adoration for father, mother, best liked teacher and least liked teacher. Chaturvedi (1970) studied the deviant behaviour of students and teachers with regard to definite patterns of neuroticism, anxiety and paranoid traits, which are responsible for conflicts between them. He also investigated into the relationship between discipline in school and home environment, caste and religion. Dasgupta (1965) made an analytical survey of the emotional difficulties (negative feelings — worry, strain, annoyance) of the teachers in their professional school life. Quraishi (1972) used Flanders' interaction analysis system for observing and recording teachers' classroom behaviour and attempted to predict it from personality traits (as measured by the Thurstone Temperament Schedule) and attitudes (measured by an adaptation of the scale of Wandt, Glassey and Patel). Santhanam (1972) sought to study the patterns of teacher behaviour and influences in relation to age, recency of training, sex, experience, marital status, and the subject matter taught by him.

Values and attitudes :

Generally values and attitudes of student teach-

ers and teachers have been studied in relation to some other variables and as complementing part of investigations mainly concerned with some other issues. Some studies, however, have devoted themselves exclusively to them. Mehta (1971) studied the attitudes of student teachers of primary Basic training institutions of Gujarat towards community life and craft and evolved a special programme to bring out a positive change in their attitudes towards them. NCERT (1971) used a Likert type scale to determine the reaction of 6558 teachers of middle sections of secondary schools towards the teaching profession, and the relationship of these reactions with factors like management, area, sex, age, experience, qualifications, marital status, etc. Ahluwalia (1974) developed a Teacher Attitude Inventory, measured the change in professional attitudes of student teachers as a result of one year teacher education course and made inter-institution, intra-institution and sexwise comparisons of teachers' attitudes. Mehrotra (1973) compared the effect of the bachelor of education programme on the regular full time students and the correspondence course students (who are teachers in service) on the student teacher's attitude towards teaching. Comparisons were made between men and women teachers and teachers of science and humanities, between correspondence course students of different age groups and with varying years of experience. Samantaroy (1971) investigated into the possible nature of relationship among teacher attitude, teacher adjustment and teaching efficiency. Singh (1974) constructed and standardised a Teacher Value Inventory. He measured the dominant values of teachers, their attitude towards the profession and their satisfaction with their job and then concerned himself with the nature of relationship between teacher values, attitudes and the job satisfaction. Kulshrestha (1974) designed an instrument to identify and measure the emerging values of teachers and their characteristics in the present socio-cultural environment of schools.

Teachers roles :

Shah (1969) made a sociological survey of the role of the secondary school teacher. He collected opinions from teachers, students, principals, board members, parents and community leaders regarding the teacher's role and attempted to see how these opinions differed from one group to another and with differences in social background. Department of Post-graduate Studies in Education, Bangalore University (1974) found out the role expectation of pupil teachers regarding the functions of a teacher and also measured their attitude towards and interest patterns in

teaching as a profession. Bhatnagar (1971) studied the role expectations, role performance and training needs of subject matter specialists working in agricultural institutions.

Needs and problems of teachers :

Sharma (1970) investigated the professional needs of teacher educators of undergraduate training institutions of Madhya Pradesh and Maharashtra and attempted to suggest measures for meeting these needs. Thakur (1973) studied the special problems faced by superior teachers as distinct from the general problems of teachers as a whole. National Institute of Basic Education (1960) found out the difficulties experienced by teachers of Basic schools in their day-to-day work, pinpointed specific areas and ranked them in order of priority.

Workload :

Pal and Ghosh (1967) computed the load of the work of teachers — curricular and cocurricular work, office and other academic work performed in school or at home — in secondary schools of Uttar Pradesh and attempted to relate it with their attitude towards their job. The State Institute of Education, Maharashtra (1971b) examined the reasonableness of the prevailing complaints about overwork by the teacher educators in Junior Colleges of Education. Manuel (1965) made an assessment of the workload of teachers in secondary schools of Madras from the viewpoint of administration, various aspects of teacher's work and use of teachers' free time.

THE PROCESS OF TEACHER EDUCATION

The universities and the state departments of education prescribe courses in education of teachers for secondary and elementary teachers respectively. The course descriptions do give an idea of the general programme as well as its constituent parts. Yet, how those programmes are implemented, what actually happens in practice is more vital and therefore, it is useful to understand the actual process of teacher education. Some researchers have attempted to make overall studies of teacher education institutions, some others, environments for learning, curriculum, teaching practice, teaching methods, educational technology including microteaching programme, learning and classroom interaction, and evaluation.

Overall studies of institutions :

Upasani (1966) examined the existing primary teacher training programmes in the state of Maharashtra with special reference to rural areas. He identified their major strengths and weaknesses and took

into consideration the various aspects, viz., instructional objectives, curricular programmes, organisation of the programme, staff, student personnel services and inspection. Ganju (1973) studied the working of various aspects of the graduate teacher training institutions in Madhya Pradesh and suggested measures to eradicate weaknesses and drawbacks. The State Institute of Education, Gujarat (1965) surveyed the problems of the trainees of the primary teachers' institutions of Gujarat and their views on the present syllabus. The same State Institute of Education made intensive case studies (1966) of ten percent of those institutions. Sharda Devi and others (1970) made an indepth, on the spot, intensive study of three government, rural, men's elementary teacher training schools in Bihar, while Marr and others (1969) made a similar study of the actual functioning of the programmes, strengths and weaknesses of the three colleges of education of the Panjab University. Manuel (1964) attempted to discover conditions and practices in schools which encourage quality teaching.

Environments for learning :

Joshi (1972) made a comparative study of innovative practices of teachers' colleges in India and abroad with reference to objectives, curriculum, methods, and research. He also identified factors responsible for resistance to change and innovations and suggested remedial measures to overcome the resisting factors. Joshi (1974) made another similar study two years later on innovations intensively in eleven institutions and generally in fifty.

The Curriculum :

Kohli (1974) evaluated the effectiveness of the curriculum for teacher education at the B.Ed. level in Panjab in achieving its objectives. Sharma, V. R., (1973) confined his study to the compulsory courses in the theory of education offered by the Indian universities for the B.Ed. degree. His study involved 2100 trained teachers, thirty syllabi and nineteen experts, and sought to examine the objectives and the desired learning outcomes and to make an objective analysis of the theory courses with reference to them. Sharma (1971) used experimental method to evaluate two different methods of teaching the B.Ed. theory course in educational psychology with a view to analysing the potential of carry over to the classroom situations in terms of student teachers' behaviour.

Sharada Devi (1964) made a comparative study of the traditional versus Basic methods of education of graduate teachers and made suggestions for an eclectic method combining some features of both of

them with a view to achieving the aims of the socialist pattern of our society. Sharma (1973) examined the B.Ed. practice teaching programmes of post-graduate teacher education courses in different universities and evaluated how effective they were.

Teaching practice :

Sukhia (1973) analysed the job of a supervisor of practice teaching, surveyed the current supervisory practices, outlined the functions, the skills, the personality characteristics and the academic qualities of an efficient supervisor, estimated the nature and degree of contiguity between the objectives and the practices and suggested ways and means for bridging them. Jangira (1972) tested the effectiveness of classroom behaviour training based on interaction analysis, as compared with the conventional programme of student teaching in developing some selected measures of the criteria of good teaching among student teachers and the transfer of their learning to actual classroom situations. Pangotra (1972) made a study of the feedback from different sources on the classroom behaviour of student teachers. The aim was to study the classroom verbal behaviour of the student teachers and to find out the extent to which the interaction analysis feedback provided by different sources exhibit improvement in the desired direction. Srivastava (1970) studied the aims of practice teaching in secondary teacher training programmes, its contents and the methods to evaluate it. He also attempted to find the place of practice teaching in the total programme and the influence of the evaluation methods and practices on student teachers' performance.

Educational technology, microteaching, programmed learning :

Bhattacharya (1975) explored the usability of the technique of microteaching to train polytechnic teacher trainees in India. Passi and Shah (1973) conducted experiments on microteaching in simulated and real classroom conditions to see how far it was usable and what the student-teachers' attitudes towards them were.

Mullick (1964) prepared a programmed learning lesson on statistics and made an experimental study with two equivalent groups of B.Ed. students of the correspondence course — the experimental group, learning with the help of the programmed lesson and the control group, with the help of a conventional lesson.

Roy (1970) sought to identify and find out the

effective strategies of feedback for changing teachers' classroom behaviour.

Prakash and Mehrotra (1974) made an exploratory study on the use of audio-cassette in supervision of student teaching to find out the feasibility of its use and to evaluate its effectiveness in improving student teachers' skill in teaching.

Patel (1971) concerned himself with the programmes for audio-visual education and kind of training in audio-visual aids provided in the teacher education institutions in India. These programmes were critically examined with reference to the objectives, curriculum, staff, activities, selection, evaluation, aids and equipment, research and publications in the field.

Teaching methods :

Julka and others (1974) studied the relative effectiveness of the lecture and the lecture-cum-discussion methods of teaching educational psychology to B.Ed. students of four colleges in Rajasthan.

Sharma (1972) found out the relative effectiveness of four different patterns of teacher classroom behaviour, viz., narration, open questions, narrow questions, and narrow questions with feedback, upon pupils' attainment in terms of knowledge, comprehension and application.

Researchers have concerned themselves with various aspects of the process of education of teachers. However, it is unfortunate that not much attention has been given to the methods of teaching school subjects.

THE OUTPUTS OF TEACHER EDUCATION

Studies on evaluation of student teachers, problems of new teachers in schools, follow-up studies, successful and unsuccessful teachers and job satisfaction will be assigned to this heading.

Evaluation :

Chatterjee and Singh (1965) attempted to find out whether sharing the experience of having observed the same performance by instructors and having participated in the discussion following the lesson presentation resulted in the emergence of a common frame of reference and the possibility of predicting teaching competency as a function of this frame. De (1965) developed an objective, practicable, consistent and relevant achievement test of educational psychology, taught in teacher education institutions. Mehta (1972) used the technique of factor analysis to identify the factor patterns of teaching ability of pupil teachers of secondary teachers' training colleges.

Banerji (1956b) analysed the various factors associated with the assessment of ability in the L.T. examination of the education department of Uttar Pradesh. Verma (1968) made an investigation into the impact of training on the values, attitudes, personal problems and adjustment of teachers. Patted (1975) examined the relative efficiency of perceptual factors (self perception, student perception, teacher profession perception, etc.) in predicting success in teacher education course.

Problems of fresh teachers :

Singh and Singh (1970) made an attempt to understand the nature and the extent of the problems faced by probationary teachers of higher secondary schools in Varanasi region of Uttar Pradesh with a view to improving preservice training programme and to developing effective inservice programmes.

Job satisfaction :

Lavingia (1974) measured the degree of job satisfaction among teachers and the impact of job satisfaction on the stability of teachers.

Follow-up studies :

Four researchers have made efforts to follow-up the teacher trainees after they have passed out of the teacher education institutions. Bajwa and Phutela (1972) made a follow-up study of the alumni of Khalsa College of Education, Ludhiana. They surveyed the nature and type of employment of trained teachers, their change over from one job to another, appraised the extent of job satisfaction and adjustment, and thus attempted to analyse the effectiveness of training programme in the light of the practical experiences of the alumni. Bina Roy (1965) investigated the relationship between the measures of success of teachers as students under training and as teachers in schools, with a view to appraising the teacher education programmes. Sharma (1971) conducted a follow-up study with personality ratings by headmasters, classroom rating by colleagues and such other scores one year after training and studied the relationship between teacher characteristics, that is, predictors of teacher effectiveness, and teacher effectiveness as measured by their evaluation at the training course and, one year after training. Reddiar (1964) evaluated the effectiveness of the professional competence of the teachers trained by the Thiagarajan College of Preceptors, Madurai, in actual classroom teaching after completing the course. In this study, the content of the training course was analysed, the extent to which the trainees follow in their

schools the methods and techniques learnt during training was found, the relation between their efficiency as teachers and their performance during training was investigated and it was found in what respects trained teachers are superior to untrained teachers.

In a study of the development of professional education in Rajasthan, Sharma (1971) observed the lowest percentage of wastage in physical education and teachers' training colleges.

With the incomprehensible phenomena of unemployment of trained teachers on the one hand and scarcity of teachers on the other, it would be of great profit to make more follow-up studies of those who pass out of teacher education institutions.

CONCLUSION

The research work reviewed here looks quite impressive. Investigators have attacked a variety of problems, covering a large canvas of the aspects, facets and areas within teacher education. Many methods have been used, most of them quite well known and common, but some, unconventional, difficult and rare. Samples have been selected with great care in some cases, while, in others, they have been purposive — selected simply because they were available and it was convenient to collect information from them. Many studies have student teachers as their subjects. Instruments for data collection range from highly sophisticated to quite crude; from original ones, developed with great care by the investigator to those taken in full from some foreign tests; in between have been some adaptations in view of local conditions. Most of the researchers have been those who belong to institutions of teacher education.

Research and service institutions like State Institute of Education and National Council of Educational Research and Training have made many survey studies.

It, however, needs to be said that there is yet no evidence of entirely original contribution with regard to methodology, techniques, sampling, analysis and other aspects of research. Our researchers still look for and refer to work abroad. There is great need for incisive studies in the area of pedagogy — methods of teaching. With the growing demand for more seats in teacher education institutions, and as a consequence, more intake in them, there is need to see how standards are affected by large sized institutions. The curriculum of teacher education does not seem to have changed much. It is not adequate for anyone to suggest what changes should be brought

about. Researchers with deep understanding and analysis should offer guidance in this regard. It should be within the ingenuity and genius of our researchers to make a dent and develop indigenous approaches.

Teacher education programmes should take into account the current socio-economic and political life in our country and the visions of life in the future. An understanding of teacher's role and contribution

to the present and future good is an essential precondition to the development of relevant meaningful programmes. The new pattern of educational system (10 + 2 + 3) will need different types of teachers at the college, the higher secondary (+2) and secondary levels. The preparation of suitable teachers for the tasks as enjoined by this change is a challenge which researchers should take up in right earnest.

ABSTRACTS : 593-654

593. *AHLUWALIA, S. P., Development of a Teacher Attitude Inventory and a Study of Change in Professional Attitudes of Student-Teachers, Dept. of Edu., BHU, 1974. (NCERT financed)*

The objectives of the project were : (i) to develop a Teacher Attitude Inventory (TAI); (ii) to measure the change in the professional attitudes of student teachers as a result of teacher education course of one academic year duration; (iii) to make inter-institution and intra-institution comparisons for a deep and probing analysis; and (iv) to study the sexwise differences in professional attitudes of the selected student teachers of Uttar Pradesh.

The study had two phases. In the first phase an attempt was made to construct, develop and standardise the Teacher Attitude Inventory (TAI). In the second phase an effort was made to highlight the possibility of wide use of the inventory for measuring changes in the professional attitudes of student teachers as a consequence of one year training. After an initial tryout of 300 items, 150 items were finally selected for the inventory. It was standardised on a group of 2169 student teachers, i.e., five percent of the total population of B.Ed. students in Hindi speaking states. The reliability of the TAI was calculated by split-half method which came to be 0.79. The inventory was validated through the application of 'known group' and 'stimulus group' techniques.

The major findings of the study were : (i) the new Teacher Attitude Inventory was a reliable and valid tool for the measurement of teachers' attitudes; (ii) the mean attitude scores, as a general rule, were found to decrease in place of improving at the end of training programme; (iii) the mean attitude scores were changed either positive or negative as a consequence of the nature of training programme provided by different institutions; (iv) sexwise and institution-wise mean attitude score differences were found but these were not significant; and (v) sex was not found to be either a determinant or differential of change in professional attitudes of student teachers as a consequence of teacher preparation programme.

594. *ARORA, K., DASGUPTA, H., CHOPRA, R. and PURI, P., National Survey of Teacher Education at Elementary Level, Department of Teacher Education, NCERT, 1974.*

The project was undertaken with an objective of collecting data concerning major areas of elementary

teacher education such as students and staff, facilities and services, programmes, administration and supervision, etc., with a view to (i) compiling a National Report which could be used as a reference document, and (ii) locating weak areas which needed strengthening and thus required special attention of the NCERT.

A comprehensive questionnaire was used for the purpose of the survey. Data were collected from all the elementary teacher training institutions of India. The draft report which emerged out of the data was sent to the SIEs, directors of public instruction, and the field advisers for comments and suggestions. The final report was prepared after their incorporation.

The following were the major findings of the survey : (i) about 59.9 percent institutions were located in urban areas while 48.3 percent in the rural areas; 54.71 percent institutions were residential in nature, 22.84 percent were partly residential and the rest were not residential; 46.30 percent of the institutions were coeducational, 35.89 percent were for men only and 17.01 percent were for women only; 63.18 percent institutions were run by state government, 27.34 percent were run as private aided and 9.47 percent were as private unaided; (ii) quite a fair justice was done to the selection of candidates for admission to training institutions, the main criterion being the marks obtained at the matriculation examination; some seats were kept reserved for scheduled castes, scheduled tribes and deputed teachers too; there was a good provision for stipend in almost all the government training institutes; in majority of the states, no tuition fee was charged; (iii) in majority of the states, the minimum qualification required for the recruitment to the post of principal as well as the teacher educator was a trained graduate; (iv) in most of the states the syllabus was prescribed by the state department of education; most of the theory papers in different states were almost the same; the common papers were Principles of Education, Educational Psychology, Teaching of Mathematics, Teaching of Science, Teaching of Social Studies and Teaching of Languages; in many states, there were optional theory papers; practice teaching programme had a vital place in all the states; a little more than fifty percent training institutions had demonstration schools inside its campus but most of the demonstration and practising schools had inadequate accommodation and ill-equipped staff; (v) in many of the states, the trainees had to practice one major and one subsidiary craft; (vi) in most of the states, the

final examination was conducted by the state departments of education; usually, there was internal and external assessment for theory papers, practice teaching and crafts; (vii) poor physical facilities were observed in many respects, viz., lack of science laboratories, inadequate buildings, inadequate accommodation in the hostels, no good libraries, no trained librarians, and no adequate books and magazines; (viii) in case of government institutions, the grant from the government formed the only source of income; in case of private aided institutions also, considerable responsibility was borne by the government and in case of private unaided institutions, the main source of income was contribution from the management, donations, income from fees, etc.; and (ix) some senior officers from the directorates of education inspected the institutions and provided academic as well as administrative guidance.

*595. *BABU, D. S., A Study of Cohesiveness in relation of Some Forces of Attraction for Groups of Teaching Staff, Ph.D. Edu., Del. U., 1976.*

The study aimed at examining cohesiveness as an aspect of group behaviour of the teachers.

Defining cohesiveness as the resultant of all forces acting on members to remain in a group, a set of nine hypotheses was developed relating group cohesiveness to (i) job satisfaction, (ii) similarity in configuration of value pattern in groups of teachers, and (iii) age, educational levels, linguistic and religious affiliations of the teachers, and their worries about jobs.

Data were obtained from a sample of 502 teachers, drawn from fifteen groups of teachers in Central Schools at Delhi, Madras and Hyderabad, and public schools in Lovedale, Rishi Valley, Dehra Dun, Delhi and Ajmer. Data from all groups were collected by means of a proforma which included scales to measure job satisfaction and similarity in values of the groups, two sociometric questions, questions regarding anxieties about job, items to measure group cohesiveness, and blank for identification data. In analysing the data statistically coefficient of contingency and product-moment correlation were employed.

Some of the significant results of the study were as follows: (i) Group cohesiveness and job satisfaction were positively related. (ii) Group cohesiveness and worries/anxieties related to the job were not linearly related. (iii) For schools situated in the northern region the linguistic affiliations were somewhat related to group cohesiveness.

596. *BAJWA, B. S. and PHUTELA, R. L., The Follow-up Programme of the Alumni of the Training College, G.H.G. Khalsa College of Education, Gurusar Sadhar, Ludhiana, 1972. (NCERT financed)*

The study aimed at analysing the weakness and strength of the teacher training programme. The specific objectives of the study were: (i) to study the nature and type of employment of the trained teachers; (ii) to study the pattern of change over from one job to another; (iii) to appraise the extent of job satisfaction and job adjustment; (iv) to study the academic improvements the alumni had made after leaving the training college; and (v) to analyse the effectiveness of curriculum of the training college in the light of the practical experience of the alumni.

The sample of the study comprised the students of G.H.G. Khalsa college of Education, Ludhiana. They had their training during the academic years 1965-66 to 1969-70 and had joined teaching profession. The sample consisted of 572 alumni including both sexes. The data were collected through questionnaire, interview, and rating scale. The questionnaire included questions on personal, social, and educational information of the alumni, along with the school condition, methods of instruction employed by them and miscellaneous information. Rating scales were given to the employers to rate the teachers (alumni) employed in their respective schools.

The major findings of the study were: (i) eightyfive percent of the alumni were employed — eighty percent as teachers, and five percent in non-teaching jobs; (ii) fiftyeight percent of those in teaching jobs were fully paid, seventeen percent underpaid, and eighty percent of those in nonteaching jobs were underpaid; (iii) eightyeight percent of alumni were teaching subjects offered as methods by them; (iv) majority of the alumni expressed that their knowledge of educational psychology was the most helpful in their profession, while their knowledge of philosophical foundations of education was the least useful; (v) thirtyfive percent of alumni got employment on their merit and sixtyfive percent got jobs through recommendation; (vi) seventyeight percent of alumni expressed job satisfaction; (vii) all the alumni felt a need to remain in continuous touch with their training colleges through refresher courses and seminars; (viii) seventy percent of the alumni expressed desire to improve their qualifications; (ix) most seriously felt problems of the alumni in the order of decreasing intensity were further education, family, and finances; (x) fortyseven percent of the alumni

regarded their profession as social by social significant; and eighteen percent felt it as socially insignificant; (xi) fiftyone percent were having very good adjustment and 18.95 percent had average adjustment; and (xii) majority of the alumni felt that training colleges should be more practical oriented than what they were.

- *597. BHAGIA, N. M., *An Intensive Study of Innovations and Change and the Extent of Their Utilisation in the Schools and Teachers' Training Institutions of Haryana, Dept. of Edu., Kur. U., 1975. (NCERT financed)*

The purpose of this study was to assess the nature of innovations made in schools and training colleges. Besides, an attempt was also made to find out whether the problem of diffusion and implementation was associated with the institutional variables.

The independent variables studied in the present work were grouped into four categories, viz., (i) activities and efforts, (ii) motivation factors, (iii) capabilities and clarity about the innovations, and (iv) facilities as well as problems. The effect of these variables on the diffusion and implementation of the innovations was studied. For the purpose of collecting data, two tools, one for heads of the institutions and the other for teachers/lecturers, were developed and administered to all heads and concerned teachers of the 92 selected schools.

The findings showed that the teachers were not having a clear picture of their role performance and the objectives of the various innovations. Teachers needed help from different persons in acquiring the techniques and behavioural skills required to conform to their specifications.

598. BHARDWAJ, G. N., *A Critical Study of the Development of Teacher Education in Rajasthan, Ph.D. Edu., Raj. U., 1974.*

The purpose of this study was to gather evidence regarding some of the significant trends in teacher education in the state of Rajasthan in terms of the following issues : (i) organisation and administration of teacher education institutions; (ii) enrolment and admission of the student teachers; (iii) the professional subject matter of teacher education; (iv) student teachers' professional academic performance; (v) methods of instruction and evaluation; (vi) training college facilities, qualification and work load; (vii) libraries and laboratories; and (viii) in-service and extension activities.

A questionnaire was developed to gather information about the various aspects of the institutions.

An interview schedule was also prepared. Besides, other sources of information were records, prospectus, syllabi, annual reports and notifications published by universities, minutes of meetings of the faculty of education and syndicate, reports of the teacher education conference, second national survey of secondary teacher education, reports of certain sub-committees appointed by the faculty of education, report of the Shukla Committee and annual reports of the extension education services.

The major findings of the study were as follows : Thirteen institutions out of the total of twenty were run by private managing committees, two were run by state government, one by the NCERT, and four were aided by state government. Seventy percent of institutions were residential while thirty percent were partly residential. In all the institutions the student council existed, while the staff council existed in eighty percent of institutions. The minimum qualification required for admission to one year B.Ed. course was a bachelor's or master's degree with two teaching subjects at the graduate level. For M.Ed. course the minimum academic requirement was graduate or postgraduate with B.Ed., B.T. or L.T. In case of four years B.Ed. course the minimum qualification was higher secondary or pre-university course. The criteria for selection were written tests, interview, academic records, teaching experience and credit for cocurricular activities. Number of student teachers admitted to these institutions differed from one institution to another. The medium of instruction in the institutions was Hindi and English at B.Ed. and M.Ed. levels and English at Ph.D. level. Courses of study also differed from one university to another university. Main sources of income were fees charged from the students and grant-in-aid from the state government. Eighty percent institutions were run in their own buildings while twenty percent were run in rented buildings. All the institutions had trained librarians in their libraries and number of books varied from 1269 to 41651. Besides lecture method, assignment, seminars, symposium, supervised study, tutorials and discussion were also used. External as well as internal system of examination prevailed. Number of members of faculty differed from seven to twenty; and their qualifications also differed from B.A., B.Ed. to M.A., M.Ed., Ph.D.; majority of them were M.A., M.Ed. Teachers were paid government grades along with the prescribed allowances. In-service and extension programmes also existed in some institutions. Seventeen to eightyfive percent institutions did not have any difficulty in getting qualified staff while one institution felt difficulty in finding qualified staff

in the area of science, home science and commerce.

- *599. *BHARGAVA, G. L. and TRIPATHY, V. D., An Investigation into the Quality of "Unit Plans" for Teaching Prepared by a Central Agency and also the Difficulties faced by Teachers in their Use, Govt. Teachers' Training College, Ajmer. Rajasthan, 1975. (NCERT financed)*

The objectives of the study were : (i) to judge the quality of the unit plans produced by different agencies, and (ii) to find out the difficulties faced by teachers in using the unit plans.

The lesson plans were received from sixteen inspectors of schools of different districts of Rajasthan and four directorates of primary and secondary education, Rajasthan. The unit plans received were of two types : (i) unit plans produced by the directorates; and (ii) unit plans produced by the district authorities at their own levels. These unit plans were evaluated by the specialists of the respective subjects on a five point rating scale containing seventeen rating points.

The evaluation revealed the following characteristics of the unit plans produced at the state as well as district levels. (i) Unit plans produced at state level were rated above average on the rating points, namely, clarity of objectives, mastery of the subject, clarity of thoughts and proper sequence of subtests. All the unit plans were rated poor on the point of suggested remedial teaching. The unit plans in English and general science for class VI were rated superior to unit plans in other subjects. The unit plans in Hindi for classes VI, VII and VIII and in geography for class VIII were rated above average in respect of many rating points. The quality of unit plans in English for classes VII and VIII were rated average on most of the rating points. (ii) The unit plan produced at district level in English by inspectorate at Pali were rated higher than the unit plans in the same subject got prepared by inspectors at Ajmer. (iii) Almost all unit plans were rated above average in respect of rating points, viz., mastery of the subject matter and division of units. (iv) Almost all unit plans prepared by inspectorate at Alwar were rated below average in respect of rating points, namely, providing hints for teaching aids, neat and tidy work habits suggested and class management provided. (v) The quality of unit plans prepared at directorate level was superior to the unit plans prepared at inspectorate level. (vi) The unit plans did not contain sufficient indication for additional reading with a view to enriching the curriculum. The

school libraries did not contain books suggested for extra reading. The teaching aids for which instructions were given in unit plans were not available in schools. The unit plans did not give guidance to teachers with regard to reteaching of content after having administered unit tests in the concerned subjects.

600. *BHATTACHARYA, S. P., Microteaching in the Training of Polytechnic Teacher, Ph.D. Edu., MSU, 1975.*

The major objective of the investigation was to explore the usability of microteaching technique to train polytechnic teacher trainees in India.

Fortytwo polytechnic teacher trainees belonging to the Technical Teachers' Training Institute, Calcutta formed the sample. The trainees were randomly divided into two groups, namely, the microteaching and the conventional practice teaching groups. Training in indirect teacher behaviour through microteaching technique was provided to the microteaching group during their programme of student teaching, while the conventional practice teaching group carried on the conventional pattern of student teaching under supervision with stress on indirect teacher behaviour. The criterion variables for the study were student talk-teacher talk ratio, indirect-direct ratio, teacher question ratio, pupil initiation ratio, total use of asking question, total use of lecturing and total pupil talk. Flanders' Interaction Analysis Category System was used to make observations of both the groups. For each of the criterion variables, measurements were taken before and after the respective treatment. Descriptive statistics, analysis of variance, analysis of covariance, and t test were employed to analyse the data.

The results indicated that microteaching technique would be more suitable to develop the teaching skill 'Indirectness' than the conventional practice teaching techniques in the training of polytechnic teachers.

601. *CHATTERJEE, B. B. and SINGH, J. B., Predication of Teaching Competency as a Function of sharing a common frame of reference, National Institute of Community Development, Dehra Dun, 1965.*

The study aimed at finding out whether or not sharing the experience of having observed the same performance by instructors and sharing the role in the discussion following each lesson presentation resulted in the emergence of a common reference. The hypotheses tested were : (i) the closeness of agreements given by each judge with pooled judgments given by rest of the four judges would appreciably rise from

pre-presentation to post-presentation; (ii) accuracy of prediction of any judge of the post-presentation performance would be a function of the extent of contact and acquaintance of the judge with the instructor; (iii) agreement between post-presentation judgment given by the judges and instructors would be very high; (iv) consistency in judgments by the five judges would increase in the post-presentation evaluations as compared to pre-presentation prediction, about overall excellence of lessons.

The sample consisted of seventeen instructor-participants. The average age of the participants was thirtytwo years and length of teaching experience ranged from six months to more than ten years. The paired comparison method was used for obtaining judgments of expected overall excellence of lesson presentation from each of five members of staff. Coefficient of correlation and coefficient of consistency were used to analyse the data.

The following were the findings of the study : (i) the range of the scaled teaching competency scores given by the staff judges increased in the post-presentation assessments as compared to the pre-presentation prediction, while the post-presentation scaled scores of teaching competency given by the instructors themselves were found to have low range compared to the two score distributions obtained from the staff judges; (ii) the coefficients of consistency of all the five judges showed an increase from the pre-presentation to the post-presentation; (iii) the conformity of each judge, in general, increased in the post-presentation judgments and those who had the highest conformity correlation in the pre-presentation had a slightly lower conformity correlation in the post-presentation evaluations; (iv) the ten correlations among judgments of the pre-presentation evaluations when compared with the ten correlations for the post-presentation evaluations showed that there had been an increase in eight cases; (v) the coefficient of correlation between the pooled judgments given by judges and instructors for the post-presentation evaluations was 0.921; and (vi) the coefficient of correlation between pooled pre-presentation judgments and pooled post-presentation judgments was 0.527 and the same between pooled pre-presentation judgments given by the instructors was 0.485.

602. *CHHAYA, An Investigation into Certain Psychological Characteristics of an Effective School Teacher (A Comparative Study of Effective and Ineffective School Teacher), Ph.D. Psy., Kan. U., 1974.*

The purpose of the study was to investigate cer-

tain psychological characteristics of an effective teacher and to compare them with those of an ineffective teacher. The investigation considered the following six characteristics to be studied : (i) personality adjustment, (ii) attitude towards teaching, (iii) interest in teaching, (iv) emotional stability, (v) extraversion-introversion, and (vi) authoritarianism.

Out of ninety-nine higher secondary schools of Kanpur district, twenty schools were selected randomly. From these schools eighty effective and 100 ineffective teachers were selected. The teachers were categorised as effective or ineffective based on the High School Board (U.P. Board, Allahabad) examination results for three years (1968, 1969 and 1970), principals' ratings and students' ratings. The Saxena's Personality Adjustment Inventory was used to measure personality adjustment of teachers. A Thurstone type scale constructed by the investigator was used to measure attitude towards teaching. The sub-test III of the test developed by Shah was used to measure interest in teaching. The Hindi version (rendered by Jalota and Kapoor) of the Maudsley Personality Inventory was used to measure emotional stability and extraversion - introversion. The Raina's F-Scale was used to measure authoritarianism.

The major findings were : (i) effective teachers had significantly better personality adjustment and more favourable attitudes towards teaching than ineffective teachers; (ii) effective teachers did not show significantly more interest in teaching than ineffective teachers; (iii) effective teachers were significantly more emotionally stable than ineffective teachers; (iv) effective teachers were not more extrovert than ineffective teachers; (v) ineffective teachers were more authoritarian than effective teachers; (vi) age and sex of a teacher had a significant relationship with the effectiveness of teaching; and (vii) rurality or urbanity and marital status of a teacher had no significant relationship with the effectiveness of teaching.

*603. *DAMODAR, D., A Critical Investigation into the Practice of "Student Teaching and Evaluation" Programme in the Training Colleges of Andhra Pradesh, Ph.D. Edu., MSU, 1977.*

The study had the following objectives : (i) to find out the priority of perception of the personnel involved on objectives of student teaching; (ii) to study the organisation and method of evaluation of the student teaching; (iii) to identify the difficulties and problems faced by the teacher education personnel; and (iv) to analyse the problems and make suitable recommendations to face the same, taking into consi-

deration the various suggestions made by the personnel directing the student teaching.

Principals and members of the staff of all the colleges of education in Andhra Pradesh, a minimum of twenty student teachers selected randomly from each of the colleges, headmasters and some senior teachers of the practising or cooperating schools formed the sample. Questionnaire, interview and observation techniques were used to collect the data. Also, the syllabi of the three universities of Andhra Pradesh, lesson plans in different subjects, proformas for assessment, observation and criticism, and reports of training teachers and head teachers of cooperating schools were studied to get the required data. The data were interpreted on the basis of the frequency of responses and percentages.

The following were some of the major findings of the study : (i) Majority of colleges of education were lacking in facilities like accommodation, equipment, etc. (ii) About half of the colleges of education were not having extension services department or unit attached to them. (iii) Lectures on theoretical aspects of student teaching, conducting tutorials, and showing specimens of notes of lessons were found common in all the three universities. (iv) Practice in lesson planning, preparation of aids, school visits were found common in all the colleges. (v) Practice in blackboard work was found in only one college. Simulations, screening of films, and microteaching (use of videotape) were not found in any college. (vi) Except Osmania College of Education, all the other colleges were demonstrating lessons before and after the starting of student teaching programme, fixing the number of lessons at 8 to 12 in the syllabus. (vii) All the colleges were following objective based lesson planning. (viii) Student teachers were provided an opportunity for observation and criticism of the lessons given by college method master and other trainees with a proforma for their guidance. (ix) Organisation pattern of student teaching in all the colleges was found to be similar. (x) Majority of colleges were not having model or practising high schools and they were depending on fifteen to twentyfive surrounding schools for this purpose. (xi) Supervision was found to be a joint venture of college method master, staff, tutor of the college, and school subject teacher. (xii) Position of innovation and research in the colleges was not encouraging. (xiii) The record of evidence for the assessment was found to be the same in all the three universities. (xiv) Weightage of marks for various aspects of student teaching varied among the three universities. (xv) The colleges were

not having required and qualified staff. (xvi) Student teaching was taken as a formality and ritual just for fulfilling the syllabus prescription, but not in an effective manner to realise its full spirit as outlined in the objectives of student teaching.

*604. DAS, R. C., PASSI, B. K. and SINGH, L. C., *A study of the Effectiveness of Micro-teaching in the Training of Teachers, NCERT (New Delhi) and CASE (Baroda), 1976.*

The Department of Teacher Education, NCERT, undertook, in July 1975, a field experiment in collaboration with the Centre of Advanced Study in Education, M. S. University of Baroda. The main objectives of the study were : (i) to compare the effectiveness of the microteaching technique with the traditional method in the development of general teaching competence; and (ii) to try out the microteaching technique with different variations so as to determine the differential effectiveness of various treatments in the development of general teaching competence.

In order to achieve the objectives mentioned above, a set of similar experimental studies were undertaken simultaneously by nine colleges of education/departments of education. All the institutions followed a parallel group experimental design. The treatments were standardised and kept uniform, except for the deliberate variations brought about in one of the experimental groups. These studies under the master design were so undertaken as to increase the comprehensiveness of generalisations. The observation proformas, the criterion measures, the controlled variables and the treatment time were kept constant for all the treatment groups and institutions. As a first step, at a workshop, the teacher educators representing these institutions were given orientation and training in microteaching. They were helped to plan and design specific research projects within the broad frame of the master design. The teacher educators then carried out the experiment in their respective institutions during the session 1975-76. They brought the data of their experiments to the workshop held at the NCERT in March 1976 where they analysed the data and drafted their reports. The number of student teachers who acted as the subjects for the experiment was 229. After the selection of the sample, each institution randomly distributed the subjects among three equal groups of about ten subjects each. One of the groups received the Standard Microteaching Technique (SMT), the other the Modified Microteaching Technique (MMT) and the third received the Traditional Technique (TT) of teacher training as the treatments. The treatment

of the MMT was exactly the same as of the SMT, except for the planned variation to be brought about in one of the components of microteaching. Of the nine institutions included in the study, five brought in variations regarding the feedback — peer (SMT) and supervisor (MMT), two brought in the variation regarding the modelling — perceptual (SMT) and symbolic (MMT), and two institutions had no MMT group.

The results of the analysis showed that the differences in the means of the TT, SMT and MMT groups on the general teaching competence of the student teachers were due to the sampling error and/or effects of attitude scores. The general teaching competence scores of the student teachers taught through the SMT were higher than those of the student teachers taught under the TT. Similarly, the general teaching competence scores of the student teachers taught through the MMT were higher than those of the student teachers taught under the TT. However, no significant differences between the general teaching competence scores of the SMT and MMT groups were found, though the mean scores of the MMT group was higher than that of the SMT group. The treatment variation in the feedback was found significant at 0.05 level in the case of four institutions, as against the traditional technique. Similarly, the peer feedback was found significant at 0.05 level in the case of four institutions, as against the TT group which had no feedback. However, the differences in the general teaching competence of the student teachers due to the peer feedback as against the supervisor feedback were found insignificant. Thus, it was found that the student teachers trained through the Standard Microteaching or Modified Microteaching Technique acquired higher general teaching competence as compared to the student teachers trained under the traditional teacher training procedure or the usual practice teaching programme. There were no differences in the acquisition of general teaching competence of the student teachers when the feedback was given either by the peer or the supervisor.

*605. DASGUPTA, P., *An Exploratory Study into the Factors Affecting Teacher Efficiency and their Implications for Teacher Training Programme at the Primary Level, Ph.D. Edu., Del. U., 1977.*

The objectives of the study were : (i) to identify the characteristics, both personal and professional, that are considered as the constituents of teacher efficiency by various levels of educational personnel; (ii) to find out the situational factors that influence

the teacher in performing his job to the best of his abilities; and (iii) to find out the implications of the findings for improving the teacher training programme at the primary level.

The study involved headmasters and teachers of primary schools. As a part of the study a rating scale was developed. Fifty primary schools were involved for the main study. Central tendency, Kendall's coefficient of concordance test and chi-square techniques were used for the analysis of data.

The following were the major findings of the study : (i) Twentyfour personal characteristics of teacher, which had an influence on the growth and development of children, were identified. (ii) Eleven professional competencies, which were linked with the attitude of teachers to 'self-learning' were identified. (iii) The efficiency of the teacher was affected by the presence of certain factors, such as, human relationships, socio-economic conditions of the teachers, organisation of teaching-learning process, out of school activities assigned to the teacher and socio-cultural setting of the community. (iv) The personal characteristics of the teachers found an insignificant place in the scheme of primary teacher training programmes. The teachers were seldom exposed to experience the various types of social and physical situations which they would face in life situations.

606. DEPARTMENT OF POSTGRADUATE STUDIES IN EDUCATION, *A Study of the Role Expectations of Teachers under Training in the City of Bangalore, Ban. U., 1974. (Ban. U. financed)*

The main objectives of the study were : (i) to find out the attitude of pupil teachers towards different functions of teaching profession; (ii) to find out the interest pattern of pupil teachers in respect of teaching as a profession; and (iii) to investigate the role expectation of pupil teachers regarding the functions of a teacher.

The sample consisted of all the pupil teachers enrolled in the four teacher training colleges of Bangalore city during the session 1972-73. The total sample included 350 pupil teachers of which 124 were experienced male and female pupil teachers, 226 were fresh male and female pupil teachers, (157 male and 193 female). The tool employed for the collection of data had three parts : (a) an attitude scale, (b) an interest inventory, and (c) a role expectation scale. Part 'a' of the tool contained fifty items dealing with all the fields of teacher activity, viz., academic (twenty items), administrative (ten items), cocurricular (ten

items) and community (ten items). Part 'b' contained eighty items arranged into twenty tetrads having twenty items dealing with the four aspects mentioned above. Part 'c' contained twentyfive items out of which ten were dealing with academic, five were with administrative, five were with cocurricular and the remaining five were with community aspects of teacher activity field.

Major findings of the study were as follows :

(i) female pupil teachers were found to be more favourably disposed towards teaching than male pupil teachers, though both the groups expressed high degree of favourable attitude; (ii) female pupil teachers were more favourable towards the academic aspect of teaching than male pupil teachers; (iii) fresh pupil teachers were found to indicate higher degree of positive attitude than deputed pupil teachers towards teaching as a whole; (iv) the deputed pupil teachers were inclined towards administrative aspects more than freshers; (v) even among female pupil teachers the freshers had registered a higher degree of positive attitude than deputed pupil teachers; (vi) the experienced female pupil teachers were more favourable towards academic aspect than the deputed female pupil teachers; (vii) female pupil teachers were found to be more interested in cocurricular and community activities than male pupil teachers; (viii) the experienced pupil teachers were more interested in teaching than their counterpart; (ix) experience had no effect on the role expectations of male pupil teachers; and (x) fresh female pupil teachers exhibited a higher degree of role expectation than the experienced.

607. *DESAI, D. V., A Study of the Development of Secondary Teachers Education in Gujarat State since 1947. Ph.D. Edu., Guj. U., 1974.*

The study is an attempt to visualise the historical development of secondary teacher training in Gujarat State. The objectives of the study were : (i) to analyse the present position of teacher education in Gujarat; (ii) to examine critically the major current issues in the training of secondary teachers in Gujarat State; and (iii) to suggest broad outlines of a perspective plan of development of teacher education in the State.

The sample consisted of the teacher training institutions in the five universities of Gujarat. The data were collected from records, periodical reports and annual reports of the institutions. Other tools and techniques employed were : (i) questionnaire, (ii) case study, and (iii) personal interviews.

The following were some of the findings : (i) In India, the number of colleges of education increased

from fortyone in 1947 to 354 in 1972, whereas in Gujarat State this number went from one in 1947 to forty in 1972. (ii) The total intake capacity in the B.Ed. class was 100 in Gujarat in 1947. It rose to 502 in 1960 and became 3,892 in 1972. (iii) The percentage of trained teachers in Gujarat State increased from 59.2 in 1960-61 to 79.28 in 1970-71. It was estimated that it would be 83.5 percent in 1972-73. The percentage of trained teachers was higher in Gujarat than that in India. (iv) The facilities for inservice education of secondary teachers were provided only after independence. In Gujarat two extension centres were set up in 1955-56. There were four extension centres and six extension units attached to colleges of education in Gujarat at the time of the study. (v) The maintenance grant in Gujarat was increased from fifteen percent to fifty percent during 1967-68. (vi) The weightage to internal assessment increased differently, the range being from 17.5 to 100 percent. (vii) The total marks for theory and practice varied from university to university. They ranged from 850 to 1,100. (viii) Some colleges of education were playing a leading role while some were found to be still less innovative and more conservative.

608. *GANJU, M. L., A Study of the Preparation Programme of Graduate Teachers in Madhya Pradesh with a view to find out changes necessary for the contemporary Madhya Pradesh, Ph.D. Edu., Juv. U., 1973.*

The investigation aimed at studying the working of the graduate teacher training institutions in Madhya Pradesh from various aspects and suggesting measures to eradicate the weaknesses and drawbacks existing in the teacher training institutions.

The sample included fiftytwo principals, professors and lecturers of education in Madhya Pradesh, 502 teachers who had completed three years of working in schools after training, and fifty principals and heads of departments of education from all over India. Data were collected from the sample through questionnaires and opinionnaire. Data were also collected from the reports, periodicals, and journals related to education.

Some of the findings of the study were : (i) about seventyfive percent training colleges did not make any arrangement of the training according to the individual needs, capacities and interests of trainees; (ii) there was no adequate arrangement of specialised trained personnel like guidance experts, psychologists, psychiatrists and mental health experts in the colleges; (iii) the teachers were found to be emotionally

disintegrated and economically frustrated; (iv) the theory and practice of teaching existed in quite isolation; (v) most of the teachers felt that the duration of training course was not sufficient; (vi) the teacher trainees did not get adequate training in construction, administration, and interpretation of psychological tools and techniques; (vii) there was no adequate arrangement of well equipped science and psychological laboratories in the training colleges; and (viii) the programme of productive education was not provided in training colleges of Madhya Pradesh.

*609. GUPTA, N., *A Study of Some Variables Related to Students, Teachers and Instructional Materials having their bearing on Learning Outcomes in Biology, Ph.D. Edu., Del. U., 1975.*

The study was conducted with the following main objectives: (i) to study the performance of students in relation to the eleven variables considered in the study; (ii) to study the significant difference between knowledge of boys and girls; (iii) to study the significant difference between critical thinking of boys and girls; (iv) to study the interrelationship between independent and dependent variables of the study; (v) to investigate various factors on the basis of factor analysis; and (vi) to select a group of variables which can explain the maximum variance in knowledge and critical thinking of boys and girls.

The independent variables were: (a) verbal mental ability; (b) nonverbal mental ability; (c) teaching practices of teachers; (d) use of instructional materials during teaching; (e) pupil involvement during teaching; (f) laboratory teaching practices; (g) teacher using TV as an instructional aid; (h) teacher on TV and (i) TV as an instructional aid. The dependent variables were: (a) acquisition of knowledge and (b) development of critical thinking ability. Various textual cum other sources of literature based on biology students, TV teachers and NCERT were sources of data. Self prepared tests for measuring knowledge and critical thinking, the Jalota's Verbal Intelligence Test, and the Cattell's Nonverbal Test of General Mental Ability were used in the study. Correlation, multiple regression and factor analysis techniques were used for statistical analysis of data.

The main findings of the study were as follows: (i) All the eleven variables were found to be symmetrically distributed. (ii) Boys were significantly superior to girls in the achievement of knowledge. (iii) There was no significant difference between the boys and girls in the development of critical thinking ability. (iv) Knowledge and critical thinking were best

related to intelligence. (v) Knowledge was related to nonverbal intelligence in girls. (vi) Knowledge was related to teaching practice variables. (vii) Critical thinking was related to use of instructional materials and laboratory while teaching. (viii) Critical thinking was related to proper use of TV. (ix) Knowledge was related to TV teacher and TV as an instructional aid. (x) For boys all the eleven variables could be described in terms of three factors: Pupil, Knowledge Involvement and Instructional Material. (xi) For girls all the eleven variables could be described in terms of three factors, viz., Pupil-cum-Involvement factor, Guided Material factor, and TV factor. (xii) In boys the selected variables for predicting knowledge were verbal ability, TV as an aid and pupil involvement during teaching practices. (xiii) In girls, selected variables for predicting knowledge were verbal mental ability, involvement during teaching, and teacher on TV. (xiv) In boys, selected variables for predicting critical thinking were verbal mental ability, use of instructional material, and teaching practices and for girls, they were verbal mental ability, nonverbal mental ability, laboratory teaching practices, and proper use of TV as an instructional aid.

*610. GUPTA, S., *A Study of some Selected Inputs for Improving Education of Secondary School Teachers (B.Ed. Level) in Punjab — A Systems Approach, Ph.D. Edu., MSU, 1977.*

The important objectives of the study were: (i) to identify and separate (theoretically) the nine inputs from their integrating frame so that each can be subjected to suitable analysis; (ii) to find out whether quality output is a function of quality inputs; (iii) to locate and select the tools to assess the selected inputs, viz., organisational climate of colleges of education, leadership behaviour patterns of principals, morale of teacher educators and the academic motivation of student teachers of those colleges of education; (iv) to construct instruments for the five inputs, viz., physical facilities, student teachers, teacher educators, educational technology, and finance; and (v) to examine the academic achievement of student teachers in terms of the B.Ed. examination marks, the innovativeness of colleges of education and the extent of effectiveness of the programmes of the colleges of education.

The study covered all the seventeen colleges of education in the State of Punjab. Fifteen out of seventeen colleges provided information about themselves, 127 out of 200 teacher educators participated and 2090 student teachers out of 3275 students completed the questionnaires. The study employed the fol-

lowing tools : (i) the Organizational Climate Description Questionnaire by Halpin and Croft; (ii) the Leadership Behaviour Description Questionnaire by Halpin and Winer; (iii) the Purdue Teacher Opinionnaire by Bentley and Rempel; (iv) the Socio-Economic Status Scale by Kuppaswamy; (v) JIM Scale by Frymier; and (vi) questionnaires for student teachers, teacher educators and colleges of education, developed by the investigator. Mean, SD, correlation, stanine scale and the Wherry Dollittle test selection method were employed in the analysis of the data.

The major conclusions drawn were : (i) The colleges of education of the Punjab were not functioning well but were not stagnant too. (ii) In spite of the improvement in inputs, the quality of output had not commensurately resulted. (iii) The process in the colleges of education rested upon a complete absence of any effective kind of learning theory. (iv) From the point of view of inputs of organisational climate, leadership style, and teacher morale, the colleges of education were not in perfect health. (v) Only six of the seventeen principals showed the H.H. leadership style, i.e., high both in task achievement and need satisfaction. In most cases the teacher morale was average.

*611. GUPTA, V. P., *Personality Characteristics, Adjustment Level, Academic Achievement and Professional Attitude of Successful Teacher*, Ph.D. Edu., Punjabi U., 1977.

The major objectives of the study were : (i) to locate successful and less successful teachers; (ii) to find out the personality traits (Cattell's factors) of successful teachers and differentiating them from less successful teachers; (iii) to compare the academic achievement of successful and less successful teachers; (iv) to compare the attitude of successful and less successful teachers towards teaching; and (v) to find out the home, health, social, emotional, professional and total adjustment differences between the successful and less successful teachers.

A group of 400 teachers (200 male and 200 female) working in high-higher secondary schools was selected from sixtyseven schools of four districts in Punjab. The data were collected with the help of the following tools : (i) the Sixteen Personality Factor Inventory, (ii) the Bell's Adjustment Inventory, (iii) the Minnesota Teaching Attitude Scale (1951), and (iv) a tool to measure teaching success prepared by the investigator. Percentage of the marks obtained by the subjects in the first degree examinations provided the academic achievement scores. The obtained data were statistically analysed.

It was found that success in teaching was significantly related to (i) personality factors A, B, C, F, G, H, I, L, N, O, Q3 and Q4; (ii) adjustment in various fields of life like home, health, social, emotional and total adjustment; and (iii) professional attitude. But it had no significant relationship with academic achievement. It was also found that there were differences in personality characteristics, adjustment and attitude towards teaching of successful and less successful teachers. The personality characteristics, adjustment — home, health, social, emotional, professional and total adjustment, attitude towards teaching, and sex were concluded to be the determinants of success in teaching. Also it was concluded that the factors as a group were better indicators of teaching success than individual factors.

*612. HOODA, R. C., *Relationship of Attainments in Theory Subjects in B.Ed. Course with Attitude as a Teacher And Teaching Efficiency*, Ph.D. Edu., Kur. U., 1976.

The main purpose of the study was to find out the relationship of the attainments in theory courses in graduate teachers training with teaching efficiency and attitude of the teachers. For the theory course, five theory papers, viz., Principles of Education, Techniques of Education, Educational Psychology, Modern Indian Education and its problems, and School Organisation were selected.

The sample consisted of 500 teacher trainees selected from six colleges out of eleven teacher education colleges affiliated to Punjab University in 1972-73. Attainment tests were constructed in the selected theory papers after proper tryout and item analysis. The reliability of these tests which ranged from 0.86 to 0.95 and the content validity were established. The attitude of the teachers was assessed through the Minnesota Teacher Attitude Inventory (MTAI) and teaching efficiency was taken as the marks secured by B.Ed. students in teaching practice examination conducted by Punjab University in 1972-73.

The product-moment correlation among different theory papers ranged from 0.32 to 0.83 and the correlations of different subjects with MTAI ranged from 0.07 to 0.32. The biserial 'r' was calculated for teaching efficiency with different theory papers and it ranged from 0.03 to 0.33. The biserial 'r' between teaching practice and MTAI was 0.20. To study the syndromes in the factorial pattern, factor analysis was carried out. There were three different syndromes tied together by three different factors. Syndrome I (tied together with Factor A) represented Techniques of Education, MTAI scores and Teaching

Efficiency. Syndrome II (tied together with Factor B) represented Principles of Education, Techniques of Education and School Organisation. Syndrome III (tied together with Factor C) represented Principles of Education, Educational Psychology, Modern Indian Education and its Problems, and School Organisation.

*613. *INDURKHYA, B. L., The Minimum Adequate English Language Ability for Higher Secondary School Teachers of English: Measurement and Survey, Ph.D. Edu., Bhopal U., 1978.*

The study aimed at (i) formulating the Minimum Adequate English Language Ability (MAELA) for higher secondary school teachers of English in the country; (ii) constructing a standardised test for measuring attainment in English language (based on the said MAELA) for the selection of higher secondary school teachers of English; and (iii) obtaining through the instrument stated above an estimate of the English language ability of higher secondary school teachers of English in the country.

The MAELA was formulated on the basis of job specification of higher secondary teachers; and the nature of language ability required of them was determined on the basis of the syllabus recommended by the Government of India in 'Teaching of English' (1971). The MAELA was stated in terms of language elements and performance abilities classified further into 'core' and 'periphery' categories. Thus formulated MAELA was scrutinised by thirtytwo English Language Teaching (ELT) specialists from all over India. To ascertain that a candidate wanting to be a higher secondary school teacher of English has MAELA, the English Language Proficiency Test (ELPT) was constructed. The ELPT consisted of objective test items on four subtests, one each on grammar, lexis, reading comprehension, and writing. A scheme of weightage was used to distinguish between the emphasis on elements and performance abilities on the one hand, and on core and peripheral items on the other. A combination of discrete-point and job sampling approaches was used for constructing the ELPT. The initial draft of 136 items was administered to 123 higher secondary school teachers drawn from the English language teaching institutes (ELTI) of Bhopal, Vallabh Vidyanagar, Jaipur and Bombay. On the basis of the discrimination indices 90 items were selected. This final version was administered to 625 higher secondary school teachers drawn from Central Institute of English and Foreign Languages, Regional Institute of English, seven ELTIs and three Regional

Colleges of Education. The sample represented fourteen states and two union territories. The split-half reliability coefficient of the test was 0.92. Besides the content validity, the empirical validity was obtained. The ELPT was tested for internal consistency ($r = 0.85$) and coherency (r ranged from 0.69 to 0.92). The percentile norms and T-scores were calculated. The sample of 625 teachers stated above also served as the sample for the survey.

The study revealed that: (i) of the teachers surveyed six percent, twentyfour percent and thirty-six percent respectively possessed excellent, high and average proficiency while, thirtyfour percent of them had below average ability; (ii) the English language proficiency of the teachers in Madhya Pradesh, West Bengal, Punjab, Haryana, Rajasthan, Himachal Pradesh and Delhi ranked the highest; the proficiency of the teachers in Maharashtra, Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and Pondicherry and Uttar Pradesh ranked next; Bihar and Gujarat ranked last; (iii) the teachers had a better command of the core grammatical items than that of the peripheral ones; the picture was however diverse in the case of lexis; the command of the core vocabulary was inferior to peripheral ones; (iv) the teachers' performance abilities pertaining to writing was so poor that the distinction between the core and peripheral abilities did not stand out; (v) the postgraduate teachers, in general, were found superior to their graduate counterpart, although 10.50 percent of the postgraduate teachers exhibited below average capacity and fortyeight percent of the graduate teachers possessed the proficiency ranging from average to excellent; (vi) the postgraduate teachers as compared to the graduate teachers showed higher proficiency in lexis than in grammar, and in reading comprehension than in writing; and (vii) seventy percent of the teachers engaged in teaching English possessed unsatisfactory language ability.

614. *JOSHI, D. C., A Study of Innovations in Teacher Training Institutions, V. B. Teachers College, Udaipur, 1974. (USEFI financed)*

The objectives of the study were to find: (i) innovations in teacher education programme pertaining to curriculum, methods of teaching and inservice education; (ii) the types of courses followed in different states; and (iii) the resisting factors of innovations.

The method followed was the descriptive survey method. A preliminary survey of fifty teacher training institutions was made and eleven institutions were selected by stratified random sample basis for inten-

learning made by the students of average, above average and below average intelligence, when taught by the lecture and the lecture-cum-discussion methods; (ii) to assess the difference between the learning of high and low achievers taught by the two methods; (iii) to construct an objective type test on psychology of learning — the area of educational psychology which was covered under the experiment by the two different methods of teaching.

The experiment was carried out in four out of twelve colleges of education affiliated to the University of Rajasthan. A total of 160 students were selected for each of the experimental and the control groups. A pretest-post test design was employed to measure the gain by different treatments. The controlled group was taught by lecture method and the experimental group was taught by the lecture-cum-discussion method. The same teacher taught both the groups adopting the different teaching methods as required. The data were collected through achievement tests constructed by the investigators, the Raven's Progressive Matrices, the Sherry's Adult Intelligence Test, an interview schedule, and classroom observation.

The major findings of the study were : (i) both the lecture and the lecture-cum-discussion methods were useful and suitable methods for teaching educational psychology to B.Ed. students, as both succeeded in producing significant changes in student learning; (ii) there was no conclusive evidence to establish comparative efficacy of one method over the other from the results of the experiment; (iii) all the intelligence groups had been benefitted equally by the two methods; (iv) nothing could be said about the superiority of either of the two methods as far as learning by different achievement groups (above average, average, below average) was concerned, and (v) the teachers found the lecture method more fatiguing and the lecture-cum-discussion method providing more mental satisfaction.

617. KHATRY, P. P., *A Comparative Study of the Self-Concept of Teachers of different Categories and the Relationship of their Self-Concept with Professional Adjustment*, Ph.D. Edu., Pan. U., 1973.

The study was conducted keeping in view the following objectives : (i) to measure the self-concept of teachers by developing a self-concept inventory in Hindi; (ii) to measure the professional adjustment of teachers by developing a professional adjustment inventory in Hindi; (iii) to study self-ideal discrepancies among primary, secondary, and college teachers; (iv) to study the relationship between measures of

self-concept and professional adjustment of the three categories of teachers; and (v) to compare self-concept and professional adjustment of the three categories — primary, secondary, and college teachers.

The study was advanced on the basis of the following hypotheses : (i) the distributions of the scores of self-concept and professional adjustment based on the self-concept inventory and professional adjustment inventory are normal for the samples of the three categories of teachers; (ii) there are no significant differences between the self-concept scores of the three categories of teachers; (iii) there are no significant differences between the self-ideal discrepancy scores of the three categories of teachers; (iv) there are no significant differences between the professional adjustment scores of these teachers; (v) there is no significant relationship between self-concept scores and the self-ideal discrepancy scores of these teachers; (vi) there is no significant relationship between self-concept scores and professional adjustment scores of these teachers; and (vii) there is no significant relationship between self-ideal discrepancy scores and professional adjustment scores of these teachers.

A sample of 900 teachers, both men and women belonging to the primary, secondary, and college levels, were randomly selected from urban areas of the state of Haryana. The tools used in the study were the Professional Adjustment Inventory (PAI) and the Self-Concept Inventory (SCI).

Some of the main findings were : (i) the distributions of the scores of self-concept and professional adjustment based on SCI and PAI were more or less normal; (ii) there were no significant differences among the self-concept of primary, secondary, and college teachers; (iii) there were significant differences between the self-ideal discrepancies of college and secondary teachers but not primary and college teachers; (iv) there were significant differences in the professional adjustment between college and primary teachers but not between the primary and secondary school teachers; (v) there was a significant relationship between self-concept scores and self-ideal discrepancy scores of all the three types of teachers; and (vi) there was a significant relationship between self-concept scores and professional adjustment scores of the three types of teachers.

*618. KISHANPURI, S. S., *An Analysis of the Emotional Problems of the Teachers in Classroom*, Ph.D. Edu., Punjabi U., 1977.

The purposes of the study were : (i) to sort out various factors that cause the feeling of strain and

sive study. Questionnaires were mailed and a sample of principals and teachers was also interviewed.

The findings of the investigation were : (i) In the area of method of teaching, popularly used methods were question-answer and objective based teaching. (ii) The use of microteaching, programmed learning, interaction analysis, and self-learning projects were negligible. (iii) Nearly eightyone percent of the instructors frequently used lecture method in their theory classes. (iv) Not many institutions nor the instructors were involved in the inservice programme of elementary teachers. (v) In Rajasthan some innovations were reported. As for example, there were three institutions to organise regular programmes of inservice education, the teacher training institutes provided training on ungraded unit and a new experiment on first introduction to teaching' was undertaken. (vi) In Gujarat and Jamia Millia Islamia, block teaching was one of the components of the teacher education programme. (vii) In Gujarat and Rajasthan separate institutions for linguistic minorities were existing. (viii) The most significant factors of resistance to innovations as reported were : lack of facilities, lack of funds, lack of time to pursue the new ideas, lack of professional guidance, lack of support from education department, and lack of professional guidance.

*615. *JOSHI, S. M., Effectiveness of Microteaching as a Technique in Teacher Education Programme, Ph.D. Edu., MSU, 1977.*

The major objectives of the study were : (i) to enquire into the effectiveness of instructional materials synchronised with microteaching approach in the acquisition of four teaching skills, viz., stimulus variation, illustrating with examples, silence and nonverbal cues, and recognising attending behaviour, and the general teaching competence among the student teachers; and (ii) to enquire into the effect of instructional materials along with the microteaching upon the attitudes of student teachers towards teaching.

The sample consisted of thirtyfour English medium student teachers selected randomly from the student teachers of the Faculty of Education and Psychology of the M.S. University of Baroda. They were grouped into two experimental groups and one control group. The experimental groups A and B consisted of sixteen and nine student teachers and the control group C had nine student teachers. The tools used were : (i) Observation schedules for the four skills, (ii) the Madhookar Patel's Intelligence Test, (iii) the Ahluwalia's Teacher Attitude Inventory, and (iv) the Baroda General Teaching Competence Scale.

Intelligence and attitude were the covariates in the parallel group covariance design which the study employed. Instructional materials were developed for the various skills under study. In the first stage of the experiment, experimental group A and control group C were taken. The group A had treatment T₁, and group C had treatment T₂. In the second stage the experimental group B was exposed to treatment T₃, whereas the control group C retained the treatment T₂. The treatment T₁ included the training in three teaching skills, viz., stimulus variation, illustrating with examples and silence and nonverbal cues. The treatment T₂ included acquaintance with the technical skills of teaching, coupled with the traditional student teaching programme. The treatment T₃ included training in the skill of recognising attending behaviour. In treatments T₁ and T₃ the instructional materials were synchronised with microteaching. The student teachers were assigned to distant schools to avoid contamination in research. All the student teachers gave four lessons each, which were observed by the investigator and a trained observer using suitable tools, depending upon their position in group A or group B or group C. The attitude inventory was administered to all the student teachers at the end of the programme. The data were analysed by using analysis of covariance.

The important findings were : (i) Student teachers exposed to the treatment of skill based instructional materials synchronised with microteaching for all the four skills, scored higher in the acquisition of respective skill than the student teachers exposed to the traditional teaching programme. (ii) The experimental groups scored higher in the acquisition of general teaching competence than the student teachers exposed to the traditional teaching programme. (iii) The experimental groups together did not differ significantly from the control group in their attitude toward teaching.

616. *JULKA, G. L., KULSHRESHTHA, S. P. and BIDAWAT, S. S., Experimentation in Methods of Teaching Educational Psychology to B.Ed. Students, (An Experimental Study on Lecture and Lecture-cum-Discussion Methods), Basic Teacher Training College, Gandhi Vidya Mandir, Sardar Shahr, 1974. (NCERT financed)*

The main purpose of the present investigation was to study the relative effectiveness of the lecture and the lecture-cum-discussion methods of teaching educational psychology to B.Ed. students studying in the four selected colleges of education of the University of Rajasthan. The study had the following objectives : (i) to study the difference between the gain in

depression; and (ii) to find the 'frequency of occurrence' and 'intensity of feeling' of these factors in individual teacher's life and work as a teacher.

The sample constituted 183 higher secondary, secondary and primary school teachers who represented the rural and urban areas. Questionnaire was used as the tool of the data collection. Data were analysed qualitatively.

In the first phase it was found that the causes of annoyance of teachers were : children's behaviour inside the classroom, children's negative attitude towards work, negative personality traits, undesirable behaviour on playground, objectionable personal habits, etc. The degree of intensity of occurrence, which ranged from most frequent to the least frequent, with teachers were : school conditions, classwork with children, discipline and control, routine duties, nervous strain, sympathy and cooperation, general conditions and criticism. The sources of pleasure from greatest to the least were : teacher's pride and satisfaction in achievement of students' work and behaviour, appreciation and praise. The primary teachers reported their own feelings of irritability, criticism from inspectors, low status in the society and slow progress of children as being sources of greater degree of worry and strain as compared to high and higher secondary school teachers. The high and higher secondary school teachers mentioned about the continuous noise of the pupils, low results despite their best efforts, indiscipline of students, inadequate building and lack of equipment, and disobedient students, as sources of strain. Women teachers reported the noise of children, own feeling of irritability, low results and disobedience of students as sources of worry, while men teachers reported postings at different places against their own wishes as the source of worry. The urban teachers did not report more worries and strains which occurred more frequently in case of rural teachers.

619. KOHLI, V. K., *A Critical Evaluation of Curriculum for Teacher Education at B.Ed. level in Punjab*, Ph.D. Edu., MSU, 1974.

The objectives of the study were : (i) to evolve, screen and identify the specific objectives of teacher education at B.Ed. level in Punjab; (ii) to find out the effectiveness of the existing curriculum on the basis of objectives as perceived by the educators and personnel in the field of teacher education; and (iii) to suggest guidelines for improvement of the B.Ed. curriculum.

The sample included fifteen colleges in the seven districts of Punjab. The tools and techniques used for data collection were : (i) a questionnaire, (ii) an

interview schedule, and (iii) observation.

The study revealed that (i) sessional work was useful but it had to be organised in a more serious manner; (ii) theory should be reduced to fifty percent and practical work should be increased accordingly; (iii) considering restructuring, some of the optional papers like school organisation could be included in the paper on principles of education; (iv) block practice teaching could better be replaced by practice of internship under the charge of practising school; (v) need was felt to extend the duration of training to two years instead of the existing one year system; (vi) organisation of specified cocurricular activities was a felt need; (vii) need was also felt in respect of annual review of the curriculum by a committee of teacher educators, experienced heads of the schools and school teachers; and (viii) on the basis of recommendations of Education Commission (1964-66) curricular objectives should be formulated under (a) knowledge and understanding, and (b) skills and abilities.

620. KULSHRESTHA, S. P., *The Emerging Value Pattern of Teachers in a Socio-Cultural Environment of the Schools in the Present Era*, Ph.D. Edu., Pan. U., 1974.

The study had the following objectives : (i) to design an instrument to identify and to measure the emerging values of teachers; (ii) to study the teachers' value in relation to certain variables like sex, marital status, religion, caste, teaching subject, teaching experience, age, income, education, zones and training, with a view to finding out the differences and uniformity in their value pattern; (iii) to find out the emerging value pattern of teachers and their characteristics in the present socio-cultural environment of schools; (iv) to study the socio-cultural environment of the school in the present era; and (v) to offer suggestions for the improvement of the school environment in the light of the results obtained.

The sample consisted of 700 teachers of sixty-four intermediate and higher secondary schools of rural and urban U.P. Both government schools as well as government recognised schools were included in the sample. The following three tools were developed : (i) the Scale of Teachers' Value (STV); (ii) the School Socio-Cultural Identification Profile (SSCIP); and (iii) the Personal Data Blank (PDB).

The findings revealed that (i) schools were found to be distributed in rural as well as urban areas and were affected by the type of community, its values and traditions; (ii) the uniformity of socio-cultural environment existed more or less in each

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school; (iii) the schools were making no discrimination regarding the caste, creed or colour in making admissions of students or in appointing the staff; (iv) students were getting facilities for playing, reading, and recreation in schools and also canteen and mid day meal; (v) cocurricular activities in a majority of schools were encouraged and also the school provided both academic, social and cultural experiences to the pupils; (vi) school subjects and curricular activities were similar in all schools; (vii) age and grade of the students were found to play an important part in choosing friends; (viii) the teachers of most of the schools showed an interest in reading and consulting library; (ix) inter-personal relationships among teachers, principals and students were in existence in varying amount in different schools; (x) the teacher-student ratio varied from 1:10 to 1:50 with a highest percentage of schools having ratios between 1:21 and 1:30; (xi) democratic environment was existing in a majority of schools; (xii) formalism in schools existed with regard to time-table, seating arrangement, programme of cocurricular activities, agewise admission, gradewise subjects and senioritywise responsibility; (xiii) rituals and ceremonies like school assemblies, athletic events, farewell parties and similar other activities were performed with the cooperation of the students and the staff.

*621. *LAKSHMI, S., Conducting Achievement Motivation Development Programme on Teacher Trainees and Studying its Effect on Their Performance, Ph.D. Edu., MSU, 1977.*

The study was conducted with the following objectives: (i) to develop achievement motivation among teacher trainees; (ii) to study the effects of achievement motivation on the performance of teacher trainees; (iii) to study the effect of achievement motivation on anxiety; (iv) to study the effect of achievement motivation on self-perception; and (v) to study the change in n. Achievement and its effects on behavioural changes.

One hundred teacher trainees of Sri Sarada Training College for Women, Salem, formed the total population. The sample included fifty students, twenty-five in experimental group and twenty-five in control group. The groups were matched on intelligence scores. The input programme for developing n. Achievement was implemented in the experimental group. The tools used in the study were the Raven's Standard Progressive Matrices for testing intelligence, performance tests for theory papers, performance tests in teaching practice, the TAT of Murray modified by

Mehta, the Oliver Brown's Self-Reporting Inventory and the General Anxiety Scale. The pretest posttest design was used for the experiment.

The selective findings of the study were as follows: (i) Achievement motivation was developed (significantly) by the input programme specially designed for the purpose. (ii) The input programme for developing the n. Achievement of students had effected significant decrease in anxiety. (iii) Students with high anxiety had gained more in achievement motivation than those with low anxiety. (iv) Significant improvement in self-concept and perception of self was marked by the implementation of the input programme. (v) Self-concept was meaningfully related to n. Achievement; students with high and low self-concept revealed significant gains in n. Achievement. (vi) High anxiety students showed more significant gains in performance than the low anxiety students. (vii) In teaching practice, the low anxiety students gained more in performance than the high anxiety students.

*622. *LALITHAMMA, M. S., An Inquiry into Classroom Instruction, Ph.D. Edu., MSU, 1977.*

The major objectives of the study were: (i) to identify and list teaching skills required for effective classroom instruction; (ii) to prepare instructional materials for developing some of the identified teaching skills; and (iii) to validate the instructional materials developed.

In order to identify the teaching skills, the literature was analysed, discussions with teachers and teacher educators were held and personal experiences were evaluated. Then the instructional materials were prepared to develop some of these teaching skills. This material was subjected to pretryout on ten student teachers and on the basis of their reactions the drafts were rewritten. Final tryout of the instructional materials was done as an experimental study by comparing the effectiveness of the materials synchronised with microteaching approach and the conventional student teaching approach in the development of corresponding teaching skills. Parallel group covariance design was employed with two covariates, namely, intelligence and teacher attitude towards teaching. There were three groups in the study. First group was given training in the skill of increasing pupil participation using the instructional materials through microteaching approach. Second group was given training in the skills of explaining, using black board, and writing instructional objectives, in the same way as for group one, but one skill presented

after another. The third group received conventional approach to student teaching. The experimental groups were observed for the skills they were trained in, and the control group which was a common group for comparison for each of the other two groups was observed for all the four skills. The sample included all the thirtyfive B.Ed. students who taught in English medium classes and belonged to the M.S. University of Baroda during 1975-76. The data collected from these groups were analysed using analysis of covariance.

The study identified three major categories of skills. They were : A. Skills of Planning such as, skill of identifying learner's entry behaviour, skill of writing instructional objectives, etc. B. Skills of Instruction, namely, questioning skills, skills related to pupil understanding, skills related to pupil evaluation, skills related to pupil participation, skills related to pupil attention, and skills related to classroom management. C. Skills of Testing such as, skill of writing a variety of test items, skill of making plausible interpretations about the performance of pupils on the test, etc. The study revealed that experimental group I and the control group III differed significantly in favour of the former group in the development of skills. Experimental group II was significantly better than the control group.

623. *LAVINGIA, K. U., A Study of Job Satisfaction among School Teachers, Ph.D. Edu., Guj. U., 1974.*

The main aims of the study were : (i) to measure the degree of job satisfaction among teachers; and (ii) to study the impact of job satisfaction on the stability of teachers. The hypotheses tested in the study were : (i) female teachers are more satisfied than male teachers; and (ii) there is significant relationship between job satisfaction and stability of teachers.

The sample consisted of 1600 teachers from primary and secondary schools of the State of Gujarat. A rating scale was used to collect data. The reliability of the scale was found out by using test-retest method and the same was found to be satisfactory.

Major findings of the study were : (i) primary teachers were more satisfied than secondary teachers; (ii) female teachers were more satisfied than male teachers; (iii) job efficiency was positively correlated with job satisfaction; (iv) young teachers, in the age group of twenty to twentyfour years, were more satisfied in both the groups of primary and secondary

teachers; and (v) unmarried teachers were more satisfied.

624. *MEHROTRA, R. N., Effect of Teacher Education Programmes on the Attitude of Teachers towards the Teaching Profession, CIE, Delhi, 1973.*

The study was undertaken to see the impact of the bachelor of education course on the attitudes of those who had gone through it.

The study was based on the data collected from the full time and correspondence course students of the 1968-69 session. A scale prepared by the method of summated rating on the lines suggested by Likert was used to measure the attitude of teacher trainees towards the teaching profession. The final scale consisted of thirty statements. Mean and SD were used to analyse the data.

The findings were : (i) the attitude of those who completed the course was more favourable than that of those who did not; (ii) the mean score of the full time students who left the course after the first administration was much lower than that of the other 121 who completed it; (iii) the mean attitude score of full time students was lower than that of the correspondence course students at the beginning of the course but it was higher at the end; (iv) in both the groups the attitude of women students was more favourable than that of men; (v) the attitude of male students of the correspondence course was more favourable than that of the full time course men, both at the beginning and at the end of the course; (vi) the attitude of correspondence course women was more positive than that of full time course women in the beginning but was lower at the end; (vii) the attitude of full time science students was more favourable than that of the humanities students while in the correspondence course group, the attitude of humanities students was more favourable than that of the science students; (viii) the attitude of science students in the full time course was more positive than that of such students in the correspondence course, while in the case of humanities students, correspondence course students scored better than the full time students; (ix) the attitude of some age groups towards the teaching profession at the end of the course was less than at the beginning; (x) the attitude was more favourable with higher age group and it increased as the age increased except a decrease in between the age group thirtytwo to thirtysix; and (xi) the attitude became more positive with more teaching experience except for the group with thirteen to seventeen years of experience.

- *625. MITTRA, S. K., *A Study of the Impact of Training Programme on the Classroom Behaviour Pattern of Student Teachers, G.C.E., Jabalpur, 1976. (NCERT financed)*

This study was conducted to assess changes brought about in the classroom behaviour of the student teachers after they had been exposed to various programmes and had had opportunities to participate in the activities carried out in training colleges. The study was limited to the changes in the classroom behaviour pattern only.

A group of fortyeight students from B.Ed. classes of the session 1974-75 was selected for study. This represented different cadres of service—lecturers, upper division teachers, and lower division teachers with different lengths of service. The sample was divided into two groups, one experimental and the other control. Observations of class teaching were made on the basis of the Flanders Interaction Analysis Category system.

The study revealed that certain changes were noticeable as a result of the training programme in the five different aspects of the classroom behaviour. For example, a correct trend in the utilisation of teaching time learnt during the training time was maintained and carried over to the school situation as well.

626. NAIDU, V., *Career Orientation and Professional Preparation among the Women Teacher Trainees of the Colleges of Education in Madhya Pradesh, Ph.D. Soc., RSU, 1974.*

The purpose of the study was to analyse the major social contours of teaching profession in order to get a comprehensive picture of the teaching profession as it existed at the secondary school level. The study was done with reference to women teachers.

The sample of 400 women teacher trainees was drawn from a total population of 439 from all the fifteen colleges of education in M.P. The career attitudes of the sample were measured on an attitude scale of Likert type. An interview schedule was used to interview the trainees. Chi-square technique was used for the analysis of the data.

The following are the findings of the study : (i) women took up teaching profession due to its suitability to their nature and temperament; (ii) the lower and middle class women sought career under economic considerations; (iii) the women teachers had positive attitude towards career building among women; (iv) the two roles, viz., career and home making, produced role conflict in majority of the married women teachers and this gave rise to pro-

blem of family adjustment; (v) teaching was considered as a contingent role while home making was considered as a primary role; (vi) the professional status of teaching was considered low in social estimation; (vii) the teacher-taught relationship seemed to be deteriorating; (viii) the professional organisations of teachers were not functioning properly; and (ix) the training colleges worked as vital organs in smoothening processes of career orientation, job motivation, and professional preparation among the teacher trainees.

627. NCERT, *A Study of Reaction of Teachers towards Teaching Profession — Data Processing and Educational Survey Unit, NIE, New Delhi, 1971.*

The study sought to determine the extent of the teachers' acceptance of the role in which they find themselves. The objectives of the survey were : (i) to know how teachers reacted to various issues related to their professional life and efficiency; and (ii) to study as to how the above reactions were related to the factors like management, area, sex, age, experience, academic and professional qualifications, marital status, etc. It was hypothesized that the attitudes of teachers towards the profession are not affected by management, area in which the school is situated, tenure of service, sex, marital status, age, experience, academic qualifications and professional qualifications.

The sample consisted of 6,558 teachers of middle section of 377 schools attached to high and higher secondary schools and intermediate colleges of all the states including union territories except Nagaland, Andaman Nicobar Islands, Dadra and Nagar Haveli, and Lakshadweep and Minicoy Islands. The tool administered on the sample was a Likert type attitude scale. The final scale consisted of thirtyfour statements. Of these thirtyfour statements, sixteen indicated positive and eighteen indicated negative attitudes towards teaching profession.

Major findings of the study were : (i) the attitude of teachers differed significantly under different managements; (ii) the tenure of service did not affect the attitude of teachers; (iii) the attitude of male and female teachers differed significantly; (iv) marital status did not influence the attitude of teachers towards the profession; (v) younger teachers showed more positive attitude towards the profession than older teachers; (vi) experience and positive attitude were inversely proportionate; (vii) teachers with lower educational qualifications were having more positive attitude towards the profession than the

teachers with higher educational qualifications; (viii) the attitudes of trained and untrained teachers did not differ significantly on negative items; and (ix) training appeared to be a contributing factor in the development of apparent positive attitudes.

*628. *OJHA, F. B., Growth and Problems of High School Teacher Education in Eastern U.P. after 1947, Ph.D. Edu., Gor. U., 1977.*

The aim of this investigation pertained to make a critical study of the growth and problems of high school teacher education in Eastern U.P. after independence.

After a study of the problems and the condition of the teacher education through the questionnaire and other available literature, suggestions have been made under the following heads : (i) qualities of a successful teacher, (ii) teacher education programme, (iii) general objectives of the teacher education programme, (iv) instructional programme, (v) development of skills, (vi) practical work, (vii) supervision, (viii) model schools, (ix) corporate life and community living, (x) admission, (vi) allotment of seats, (xii) demonstration lesson, (xiii) examination, (xiv) tutorials and seminars, (xv) development of critical and analytical insight among student teachers, (xvi) education for the democratic cooperative endeavour, and (xvii) education for values.

*629. *PANCHAL, B. R., A Study of Innovative Proneness of Teacher Educators of Secondary Teachers' Training Colleges of Gujarat State, Ph.D. Edu., MSU, 1977.*

The main objectives of the study were : (i) to construct and standardise an innovative proneness scale for teacher educators of secondary teachers' training colleges of Gujarat; (ii) to study the innovative proneness of the teacher educators of secondary teachers' training colleges with respect to age, experience, sex, professional satisfaction, mobility, participation in inservice education, habit of reading professional literature, professional training and academic qualifications; (iii) to study the innovative proneness scale through factor analysis; and (iv) to find out intercorrelations among the components of the scale.

The sample of the study included teacher educators (N = 200) from all the forty secondary teachers' training colleges of Gujarat State. The innovative proneness scale was developed and used to collect data from the teacher educators. Percentile ranks, t test and factor analysis were used to analyse the data.

The major findings of the study were : (i) Individualisation of teaching-learning process, interschool organisation and staff development had the highest percentile score (25.0) and school community relationship had the lowest percentile score (9.0). (ii) Staff norms had the highest percentile score (58.0) and system norms had the lowest percentile score (8.0). (iii) Traditionalism, progressivism and change proneness had the highest percentile score (50.0) and conservatism had the lowest percentile score (15.0). Teacher educators above thirtyfive years were more change prone than those below thirtyfive. (v) There was no significant difference in the attitude of teacher educators towards innovations. (vi) Teacher educators with more experience perceived the importance of teaching resources in a better way. (vii) Academic qualifications of the teacher educators bore no significant relationship with attitudes to innovation, on the whole. But teacher educators with master's degree showed significantly higher change proneness. (viii) Professional qualifications did not have significant relationship with teacher educator's attitude to innovation, but M.Ed. degree showed significant concern for teaching-learning process. (ix) Mobile teacher educators were more venturesome and more prone to change. (x) Inservice education of teacher educators tended to be significantly related to attitudes to innovation, concern with teaching-learning process, teaching resources and school-community relationship. (xi) Reading habits of teacher educators did not make significant difference in the context of attitudes to innovations. (xii) Professional job satisfaction was not significantly related to attributes to innovations, situational and innovative characteristics and to any of their components, but was significantly highly related to traditionalism.

630. *PANDEY, G. S. A Study of Teachers' Adjustment in relation to Professional Efficiency, Ph.D. Edu., Gor. U., 1973.*

The major objectives of the study were : (i) to construct and standardise an adjustment inventory for secondary school teachers; (ii) to construct a professional efficiency scale for secondary teachers; (iii) to find out the underlying factors responsible for the adjustment of male and female teachers in different areas of adjustment; (iv) to predict the professional efficiency of teachers on the basis of their adjustment in different areas; and (v) to find out the predictive validity of the adjustment inventory.

An adjustment inventory measuring adjustment in five areas, viz., health, home-social, economic, institutional and ethical, was constructed. To measure

professional efficiency, a five point rating scale was constructed to rate knowledge of the subject, understanding of pupils, knowledge of methodology, expression, class management, use of teaching devices, organisation of cocurricular activities, voice and speech, health and physique, initiative and resourcefulness. The sample consisted of teachers drawn from thirtythree higher secondary schools located in the eastern districts of Uttar Pradesh. Multiple R, regression analysis and factor analysis were used for the analysis of the data.

The findings revealed the following: (i) The correlation studies of male and female teachers indicated positive relationship between all the five elements of adjustment. The strength of relationship showed that each element contributed something towards others in the process of adjustment. In the case of male teachers, two factors responsible for their adjustment were identified as 'institutional' and 'physical', whereas in the case of female teachers, they were identified as 'physical' and 'institutional'. (ii) In the case of male teachers, multiple R was 0.8656 and in the case of female teachers it was 0.9751. Thus, the predictive value of the regression equation of female teachers was higher than that of the regression equation of male teachers. (ii) The cross validity indices of 0.65 and 0.76 of male and female teachers respectively, indicated that the regression equations with their assigned weights withstood the test of cross validation.

631. PASSI, B. K. and SHAH, M. M., *Microteaching Experiments in Simulated and Real Classroom Conditions*, CASE, MSU, 1973.

The experiments were planned and conducted to fulfil the following objectives: (i) to see the feasibility of microteaching in the colleges of education; and (ii) to know the attitudes of student teachers towards microteaching in (a) simulated, and (b) real classroom situations.

A sample each of twelve student teachers, English and Gujarati speaking respectively, was randomly picked up from the B.Ed. class of the Faculty of Education and Psychology, M. S. University, Baroda, for both the experiments. The four supervisors were teacher fellows of the CASE, who were oriented beforehand in the theory, outline and evaluation of the microteaching technique. The student teachers in the experiments acted as microteachers, students and also as peer observers, and they were acquainted with actual microlesson procedure with the help of model lessons on each of the four skills, namely, skills in

questioning, reinforcement, silence and nonverbal cues, and illustration and use of examples. The student teachers followed the following design for the experiment: teach (eight minutes), discussion - feedback (ten minutes), planning (ten minutes), reteach (eight minutes) and recritique (ten minutes). For teach and reteach sessions, the samples of students were different. The sixth and seventh grades Gujarati medium students of the M. S. University Experimental School were selected for the real class situation. The experiments were continued for twentyfour sessions for the simulated teaching and for fortyeight sessions for real classroom situation experiment. The supervisors evaluated the microlessons with the help of attitude scale towards microteaching (ASMT), evaluation sheet for simulated microteaching (ESMT), and evaluation sheet for real microteaching (ERMT) and found out their chi-square values. The correlations among six dimensions of ASMT were worked out. The distributions of the scores related to the six variables were tested against equal chance hypothesis, in both experiments.

The findings of the two experiments revealed that (i) the microteachers' attitudes were favourable towards the feasibility of microteaching in teacher training programme in simulated and real conditions; (ii) the equal chance hypothesis was accepted in the case of provision for time, microteaching units covered and the role of supervisors, towards which the student teachers had a neutral attitude; it was rejected in the case of total attitude scores on ASMT, attitude towards technique of microteaching, component skills and provision for feedback towards which the students showed a favourable attitude; (iii) the student teachers favoured the reteach sessions, the time taken for the teach session and for planning, but the pattern of the teach session was not favoured.

*632. PASSI BIMLA, *Effect of Instructional Materials and Feedback upon the Development of Teaching Skills of Set Induction and Closure*, Ph.D. Edu., MSU, 1977.

The important objectives of the study were: (i) to examine the nature of feedback provided to the student teachers in the prevailing student teaching programme; (ii) to study the attitude of student teachers towards microteaching; (ii) to develop instructional materials for selected teaching skills; (iv) to study the effectiveness of instructional materials in developing corresponding teaching skills and general teaching competence among student teachers; and (v) to study the effect of different training approaches upon the attitude of student teachers towards teaching. The study hypothesised that student teachers

of the experimental group having the treatment of instructional materials and skill-based feedback in microteaching settings for various teaching skills do not differ significantly from the control group with regard to: (i) skill of introducing a lesson; (ii) skill of achieving closure; (iii) skill of reinforcement; (iv) skill of fluency in questioning; (v) skill of probing questioning; (vi) general teaching competence measured on the Baroda General Teaching Competence Scale (BGTC Scale); and (vii) attitude towards teaching measured on the Ahluwalia's Teacher Attitude Inventory.

The sample consisted of thirtyfour student teachers of the Faculty of Education and Psychology, M. S. University of Baroda, out of which two experimental groups (Group A, N = 16; Group B, N = 9) were formed. The two experimental groups were trained in two different clusters of skills under study. Instructional materials were developed for the purpose. The control group C (N = 9) had traditional teacher training. Content analysis of supervisors' records was done. Analysis of covariance and t test were used in analysing the data.

The important outcomes of the study were as follows: (i) The comments of supervisors clustered around a few aspects of teaching like questioning, explaining, etc. Aspects like content selection, remedial measures, etc., were ignored. (ii) Students who underwent the microteaching programme were in favour of it. (iii) On BGTC Scale, Groups A and B differed significantly from Group C. But Group A did not differ significantly from Group B. (iv) All the three groups did not differ significantly among each other on their attitude towards teaching.

633. *PATTED, G. M., Perceptual Factors and Success in Teacher Education Course, Ph.D. Edu., MSU, 1975.*

The study was undertaken to investigate the relationship between the perceptual factors and success in teacher education course and to determine the relative efficiency of the perceptual factors in predicting success in teacher education.

The sample consisted of two hundred student teachers undergoing the B.Ed. course in the year 1972-73 of Karnatak University. The perceptual factors considered were self perception (SP), student perception (StP), teacher profession perception (TPP), instructional goal perception (IGP) and instructional role perception (IRP). Scales for the assessment of self perception, student perception, teacher profession perception, instructional goal perception and instructional role perception were developed and adminis-

tered to the above sample. The criteria used as measures of success in teacher education course were: (i) assessment of year's work; (ii) final theory marks; (iii) final teaching marks; and (iv) final total marks. Correlation and stepwise regression analysis techniques were used for the analysis of data.

The study had the following findings: (i) With reference to assessment of year's work, SP, StP, TPP, and IGP were found to be significantly correlated and it was found that SP, TPP and IGP taken together had a potency in predicting the assessment of the year's work. (ii) Self perception and teacher profession perception emerged as significant correlates for success in final theory examination. (iii) Self perception, student perception, teacher profession perception, instructional goal perception and instructional role perception were found to be significant correlates of final teaching marks. (iv) Self perception, student perception, teacher profession perception and instructional goal perception turned out to be significant correlates for success in B.Ed. examination as a whole. (v) Self perception, teacher profession perception and instructional goal perception revealed the potency for prediction when taken together with self perception making the greater contribution.

634. *PRAKASH, A. and MEHROTRA, R. N., An Exploratory Study of the Use of Audio-Cassette Recordings in the Supervision of Student-Teacher, CIE, Delhi, 1974.*

The major objectives of the study were: (i) to find out the feasibility of the use of a cassette recorder in practice teaching lessons of student teachers, and (ii) to evaluate the effectiveness of its use in improving the skill in teaching of student teachers.

As a tryout, two lessons (one in physics and the other in mathematics) were cassette-recorded by the two experimenters. After each lesson, the record was reproduced and then the teacher was asked to give his self-analysis and his comments on the use of the cassette recorder. Thereafter eight lessons were cassette-recorded. The steps in providing the feedback were: (i) observation notes, (ii) pre-reproduction self-analysis, (iii) record reproduction, (iv) post-reproduction analysis, (v) post-reproduction self-analysis by the student teacher, and (vi) filling-in of the post-reproduction evaluation schedule.

The findings were: (i) The use of cassette recorder caused a little commotion in a class when used for the first time; but after the novelty wore off, it disturbed neither the student teacher nor the pupils. (ii) The cassette recording provided an accurate re-

cord of the verbal interactions in the lesson. (iii) The use of cassette recorder resulted in (a) confirmation of good practices and consequently student teachers gaining more confidence; and (b) readiness to accept shortcomings. (iv) The student teachers could locate different types of shortcomings in their lessons after listening to the audio-cassette recorder. Some of these shortcomings were related to (a) frequent unnecessary reframing of questions asked by the teacher, (b) question elaboration, (c) lapses regarding content, facts, figures and concepts, (d) lapses regarding language, (e) unnecessary pauses in the development of the lesson, (f) teacher's voice, (g) his delivery, (h) mannerism, (i) not allowing pupils sufficient time to respond, (j) finding out that pupil participation was not sought where it could have been, (k) realization of not having adequately removed wrong concepts held by pupils, (l) not giving sufficient attention to desirable details, (m) lack of variety in approach, and (n) teacher domination.

635. *RAJAGOPALAN, S., A Study of the relationships of certain Environmental Factors to Teaching Success in English achieved at the school stage, Dept. of Edu., Anna. U., 1975. (UGC financed)*

Major objectives of the study were: (i) to devise and use a means of identifying the successful, average, and poor teachers of English at the school stage; (ii) to find the relationship between success in teaching English and the variables of sex, age, size of the family, experience and job satisfaction; (iii) to identify factors with which the teachers were satisfied or dissatisfied; and (iv) to develop the multiple regression equation for the prediction of teaching success, and to analyse the specific nature of teaching success.

The sample included 225 teachers, twenty headmasters and twenty first assistants belonging to twenty schools. Tools employed for the study were: (i) a teacher situation inventory; (ii) a rating scale; (iii) a peer rating scale; and (iv) an overall rating scale administered to the headmasters.

Major findings of the study were: (i) the teachers were, on the whole, only mildly satisfied with their environment; (ii) the teachers were satisfied with the headmaster and the school organisation; (iii) the teachers were most dissatisfied with the local community and the students; (iv) married teachers were more satisfied with their environment than the unmarried teachers; and (v) teacher's experience in teaching English determined his success, i.e., the more a teacher was experienced the more successful he was.

*636. *RAO, K. S., Study of Self-Perception, Achievement Motivation and Academic Performance of the Prospective Secondary School Teachers, Ph.D. Edu., MSU, 1976.*

The aims of the study were: (i) to measure n Ach. and self-perception of student teachers and to examine their relationship with sex, residence, and socio-economic status (SES); and (ii) to examine to what extent these variables explained the achievement variance of the subjects.

The sample consisted of 139 men and 271 women B.Ed. students of the academic year 1972-73 from the colleges of education affiliated to the University of Madras. Data were collected by using the McClelland and Friedman's TAT pictures, the Wylie's Self-Report Inventory, the Madhookar Patel's Intelligence Test, and the personal data sheet.

The following were some of the findings of the study. (i) There was a significant difference between the n Ach. scores of rural and urban students, the latter scoring higher. (ii) The n Ach. levels of men and women students differed significantly with the latter scoring higher. (iii) There was a positive relationship between the students' n Ach. level and parents' educational level. (iv) There was no significant difference in n Ach. levels found among the students whose parents belonged to labour, clerical or semi-skilled work, school teaching and lecturership occupational groups. (v) There was a significant difference in mean measures of n Ach. between the subjects whose family income was low and the subjects whose family income was middle. (vi) There was a significant difference in n Ach. levels between the students who stayed in the hostel during B.Ed. training and the students who attended B.Ed. training from homes. (vii) There was a significant difference in n Ach. scores between the students who were highly intelligent and the students who were less intelligent. (viii) 'Self' was perceived significantly higher by the urban students than the rural students. (ix) The women students had more positive perceptions than the men students on all aspects of the phenomenal world. (x) Parents' college education emerged as a potent factor having significant relationship with the perception of certain aspects of the phenomenal world of the students. (xi) Students who came from the middle income families perceived authority significantly different from those who came from the low income families. (xii) No significant relationship was found between the perceptions of 'self' and n Ach. (xiii) A significant relationship was found between the perceptions of others and n Ach.

- *637. *RASTOGI, K. G., A Study of the Supervision of Practice of Teaching of Students of B.Ed. Course through Correspondence, CIE, Delhi, 1969.*

The following objectives were considered pertinent for the present study : (i) to find out the extent to which the supervision of the student teachers under B.Ed. correspondence course was done both by the school principals and staff of the CIE; (ii) to assess the nature of supervision done in terms of remarks per supervised lesson, coverage and types of supervision remarks; and (iii) to make a comparative study of the supervision by the school principals and staff of the CIE regarding different school subjects, men and women students as well as their teaching experience.

The sample for the study consisted of 364 lesson plan note books, discussion of 3200 lesson plans, 1778 supervised lessons, and 7160 supervision remarks. All these categories of data sources were dichotomised according to men and women student teachers. The data were analysed separately for (i) men and women student teachers, (ii) different school subjects, and (iii) teaching experience. Percentages and means were computed in analysing the data.

Some of the significant findings of the study were as follows : (i) Percentage of students whose lessons were discussed by school principals was ninetyfive, and by the CIE staff ninetyeight. (ii) Average number of lessons discussed by the principals was six, and by the CIE staff three. (iii) Percentage of supervised students by the principals was seventyeight, by the CIE staff 26.5. (iv) Average number of lessons supervised by the principals was six, and by the CIE staff two. (v) Average number of remarks per supervised lesson given by the school principals was 3.5, and by the CIE staff 8.5. (vi) Four types of remarks were given to the student teachers, viz., neutral, negative, suggestive and appreciative. The last three types of remarks given by the CIE staff did not appreciably differ in respect of men and women student teachers. (vii) With regard to different aspects of lesson plans high weightage was given to three aspects, namely, development, question and response, and use of blackboard; low weightage was accorded to assignment, subject matter and recapitulation aspects. In giving weightage to the above aspects of lesson plans the school principals and the CIE staff did not differ much. (viii) There was predominance of appreciative remarks from principals given to both men and women student teachers. (ix) Types of remarks from the principals as well as the CIE staff

varied from subject to subject in respect of men and women student teachers. (x) The experiencewise analysis revealed that in case of principals the percentage of supervised men students was higher in ten years experience category and that of women students in three to six years category; in case of the CIE staff this percentage of men students was higher in three to six years category, and that of women students in seven to ten years category.

- *638. *SAFIA SULTANA, A Study of Academic Difficulties of Student-Teachers, Dept. of Edu., AMU, 1976. (NCERT financed)*

The purpose of this study was to identify the academic difficulties which the student teachers encounter during their period of training for teaching profession.

For the purpose of data collection, a questionnaire was administered to 530 student teachers. The questions were based on course contents, teaching and learning, teaching practice and supervision. The economic background of the student teachers was also taken into account. Data were collected from the full-time students of the training institutions in Aligarh city. Administration of the questionnaire was followed by an interview of those 285 student teachers who returned the questionnaire properly filled-up.

The results revealed the following as the major difficulties of student teachers : (i) Course content of theory courses, especially philosophy and psychology, is difficult. (ii) Teacher's teaching methods, i.e., no chance for the students to clarify their difficulties during the class period, are another area of difficulty. (iii) Majority of the students, who have not been to English medium institutions before, find it difficult to switch over to the English medium at this level; and, therefore, it is extremely difficult for them to understand what is being taught in the class. (This difficulty has especially been mentioned by the students in the Department of Education). (iv) On the basis of their experience of practice teaching, their main difficulty is that what is being taught in methodology classes is not acceptable to school teachers and they hardly agree that new methods be tried out in actual classroom teaching. (v) Supervision as done by the method teachers is contradictory and they get confused and do not know whose suggestions to follow. (vi) The whole programme is so overcrowded that they do not get enough time for participation in other activities. (vii) Most of their difficulties persist because the teacher educators never try to keep any out-of-class contacts with them.

639. SARAF, R. S., *Training and Preparation of Teachers of English as a Second Language in Maharashtra: A Critical Study, Ph.D. Edu., Bom. U., 1975.*

The major objectives of the study were: (i) to review the changes in the teaching of English in schools and corresponding changes in the preparation of English teachers in the last twentyfive years; (ii) to make a detailed study of the programme of teaching of English in the B.Ed. course in Maharashtra with reference to aims, courses, methods, and materials; and (iii) to study the facilities for inservice training of teachers of English and assess their effectiveness. It was hypothesised that the programme of preparation of teachers of English in Maharashtra would be inadequate and not effective.

The study was conducted on 1000 teachers selected from fifty colleges of education in Maharashtra, on the basis of schools of rural versus urban background, government versus nongovernment management, single sex versus coeducational type and having majority trained versus majority untrained teachers. Care was also taken to see that every district and educational division was proportionately represented in the sample. All the teacher educators in charge of teaching of English were also included in the sample. The data were collected through several tools. Two different questionnaires were used for the colleges of education and one for teachers of English. These were supplemented by interviews, observation of teaching of English in classrooms, studies of documents, and checklists and inventories.

The study revealed that: (i) English was a compulsory course throughout Maharashtra having uniform syllabus, textbooks and other instructional material; (ii) the output of English literature graduates was far too short of the need of the teachers in English and those who sought admission to the colleges of education offering English method were weak in the language specially in spelling, vocabulary and use of articles; (iii) the courses in teaching of English had also not much changed in the colleges of education; (iv) while the number of students offering English as special method remained unchanged over the years 1971 to 1974, English as a special method was offered more by the nondeputed teachers than their counterparts and most of them were from secondary schools; (v) most of the teacher educators considered the existing provision for preparation of teachers of English as inadequate and less effective; (vi) the teacher educators required a specialised training for proper implementation of the syllabus under the special me-

thod in English; (vii) there were only eighteen teacher educators who had studied English literature, most of them were third class graduates, and eight out of fifty teacher educators did not offer English as the special method at the B.Ed. level; (viii) there were only two out of fifty teacher educators who had done diploma in teaching of English from the Central Institute of English and Foreign languages, Hyderabad; (ix) students had the usual complaint of overemphasis in lecturing and theory course in teaching of English at B.Ed. level; (x) a few agencies like extension services, British Council, Central Institute of English and Foreign Languages, State Institute of Education, Maharashtra were doing good work in the field; (xi) the State Institute of Education had organised intensive courses in English in a more practical way; it had conducted seminars and workshops for teacher educators and had provided an institutional basis to the production of instructional materials.

640. SHARDA DEVI, ARORA, K., PANDEY, L. and BHATNAGAR, T. N. S., *An Intensive Study of Three Elementary Teacher Training Schools in Bihar, Dept. of Teacher Education, NCERT, New Delhi, 1970. (in collaboration with SIE, Patna)*

The purpose of the investigation was to make an indepth on the spot study of the primary teacher training institutions in Bihar.

The study was conducted on three government, rural, men's schools in a district selected on the basis of certain criteria with the help of SIE, Patna. The data were collected on admission procedure, student body and staff facilities and services, instructional programmes, institutional discipline, followup, inspection, and inservice growth of staff. It was done through questionnaire, separate interview schedules for student trainees and teacher educators, and on the spot observation. Out of the three types of programme — two month course, six month course and two year course, only the last one was studied.

The study revealed that matriculation was waived in case of teacher candidates deputed by the Department of Education and scheduled caste though it was the minimum qualification for admission. The seats were reserved for scheduled tribes (thirty percent), science and mathematics (twenty percent), Sanskrit (ten percent), Urdu (seven percent), scheduled caste (four percent) and NCC/sportsmen (three percent). The selection was done on the basis of marks obtained in matriculation examination and interview. In the student body of 299 students in the three institutions, six had less than six years of education,

fourteen had passed the eighth class, 276 were matriculate or higher secondary passed, two were intermediates and one was Navin Shastri. Out of 299, sixty-eight candidates had teaching experience. The age groups of the students were : ninety students in the age group of 16-19 years, 108 in the 19-22 group, sixtyfive in 22-25 group, and the rest were 25-28 years old. Majority of the students were third divisioners. Majority of the teacher educators were in the age group of 35-45 years. They were graduates with diploma in education. Only five out of twentytwo had master's degree with one having master's degree in education. Except for two having first division at matriculation stage all others in all the examinations had either a second or a third division. The teaching experience varied from five to even more than thirty years. Seventeen out of twentytwo had the experience of teaching in high schools, eight were in the inspectorate and two were clerks. Except for nine who entered the profession either as last option or per chance all entered with favourable attitude to the profession. The teacher educators were not satisfied with the job condition. They were not strained with workload except for the practice teaching session. The teacher educators were found to live a harmonious life in the campus except in one school where some tensions between the principal and the staff were there. They were found to do some extra duties of clerical nature. A few had attended more than one inservice education programme, but a large number of them had not attended any such programme so far. In spite of the schools being situated in vast field campuses, the building and hostels were poor, damaged and inadequate. Classes were held in open space or in the hostel varandah or in the hall where the students were accommodated. Students were usually huddled together on the floor or they were found to sit on the cots packing up their beddings in one corner. It was usually combined with library. None of the three schools had electricity, any sanitary arrangements, and adequate drinking water. Libraries were equipped with 2,000 to 2,500 books and had Rs. 50.00 as the annual grant. There was no separate library room and librarian. The instructional programme comprised professional content-cum-methodology course, student teaching, work experience, art and craft education, and community life, extension work, and physical education. Except for the last group which was evaluated completely internally, in all other cases internal and external assessments shared fifty percent each. Teacher educators used lecture method in the class usually, but some passed on to questioning, some read out from the textbooks and explained, and some dictated notes. The institu-

tions did not find any problem of discipline. The student trainees were never followed up after their training. The institutions were inspected usually once in two to three years. The inspection usually comprised examination of office records and only at times a hurried round of the school and the hostel.

*641. SHARMA, K. K., *Effect of Different Techniques of Feedback upon the Attainment of Teaching Skills related to Stimulus Variation among Teachers*, Ph.D. Edu., MSU, 1977.

The important objectives of the study were : (i) to study the feasibility of microteaching as an innovative technique in Indian conditions without the use of hardware; (ii) to study the differential effect of three techniques of providing feedback, viz., discussion, oral, and written, on the attainment of teaching skills related to stimulus variation, viz., body movement, gestures and shifting sensory channels; and (iii) to study the transfer of training from microteaching under simulated conditions to real classroom teaching.

The pilot study was conducted on a sample of eighteen B.Ed. students of the Faculty of Education and Psychology of the M.S. University of Baroda during 1973-74. The final study was conducted on thirty-two B.Ed. female students of the D.A.V. College of Education, Abohar (Punjab) during 1974-75. They were divided into four groups, three experimental and one control, all being matched on various attributes. The tools used in the study were (i) a personal data blank to collect the bio-data of student teachers, (ii) the general teaching competence observation schedule, (iii) three skill evaluation proformas, (iv) an attitude scale to measure attitude of trainees towards microteaching, (v) a self-evaluation proforma for microteaching programme (simulated conditions), and (vi) a free response evaluation proforma for microteaching programme (simulated conditions). Ratings of the peer supervisors and of self were taken on two skills and in case of third skill only peer ratings was taken. The treatment administered was in this order : (i) pretest (school stage), (ii) laboratory stage — characteristics of a teacher, roles of a teacher, skills of teaching, skills related to stimulus variation, orientation to microteaching, simulation and role playing, planning of microlessons, training in three skills, (iii) administering of the attitude scale, self evaluation proforma and free response evaluation proforma, (iv) posttest (school stage). The control group had the conventional student teaching, instead of laboratory stage.

The major conclusions of the study were : (i)

Discussion was the most effective technique of providing feedback by the peer supervisors for the attainment of the skill of body movement. Similarly, written feedback was effective in case of the skill of shifting sensory channels. (ii) With regard to effectiveness, the hierarchy among three techniques of feedback was discussion, written and oral. (iii) Only in the case of the skill of shifting sensory channels, discussion was least effective. (iv) There was no differential effect of the three techniques of feedback upon the attainment of skill of gestures. (v) There was practice effect of microteaching lessons in the gradual improvement in the performance of the skills of body movement and gestures when practised under microteaching setting. (vi) The peer rating on the skills of body movement and gestures always remained at a lower level than the self-rating. (vii) The student teachers who had undergone microteaching treatment showed favourable attitudes and opinions towards the programme.

642. SHARMA, S. L., *Evaluation of Practice Teaching Programmes of Post-graduate Teacher Education, Ph.D. Edu., AMU, 1973.*

The main purposes of the present study were: (i) to examine the B.Ed. or B.T. practice teaching programmes followed in different Indian universities; (ii) to study the draft syllabus as recommended by the B.Ed. syllabus revision committee; (iii) to examine the syllabi of the universities of Uttar Pradesh to see how far they would fall in line with, or would differ from the above; (iv) to see how far these programmes were helpful in developing in the teacher trainees a proper philosophy of teacher education, in equipping them with skills necessary to develop children in schools into efficient citizens of the country; and (v) to make recommendations for effecting necessary change in the programmes to meet the above requirements.

The present study was an evaluative survey. Sampling was stratified. About 1080 student teachers were selected from thirtyfive selected departments of education in U.P. As many as 135 trained teachers working in the secondary schools in U.P. were also included in the sample. Tools employed for data collection were questionnaires, schedules and on the spot observations.

The following were some of the significant findings of the study: (i) Observation of lessons of school teachers before practice teaching was generally not in practice. Demonstration lessons were given in all the teacher training institutes, but in some it was only on paper and not in practice. Number of these lessons

was grossly inadequate. Thirtytwo percent members thought these lessons essential. A majority of student teachers thought them very useful. (ii) Knowledge of different methods, and techniques of teaching and of lesson planning was invariably given to students. (iii) Training in preparation of teaching aids and also practice in blackboard writing were generally given. (iv) The period of induction was too short specially in the affiliated colleges. Fifty lessons were generally given in two or three spells, and this organisation was regarded "best" by sixtyeight percent members of the staff. (v) It was found that practice teaching was done very hurriedly. Experience of teaching in different schools was not provided. Students were not allotted subjects offered by them for their degree examinations. Nonteaching work like maintaining diaries, giving tests, etc., was rarely done by the student teachers, and they did not take part in the activities of the practising schools. (vi) The college had no control over the student teachers and got very little cooperation from them. (vii) Criticism lessons were prescribed in all the institutes and their evaluation counted towards final assessment. (viii) Independent assessment of the practice lessons and other practical activities was regarded necessary by the members of the staff. Twentyfive percent of the college staff admitted undue influence in internal assessment, and fiftyeight percent admitted that it was biased. (ix) Ninetyeight percent trained teachers thought that practice teaching gave confidence and power to adapt teaching to varying conditions, helped to understand children and to solve day to day classroom problems.

643. SHARMA, V. R., *A Critical Study of Compulsory Courses in the Theory of Education offered by Indian Universities for the B.Ed./B.T. Degrees, Ph.D. Edu., AMU, 1973.*

The following were the aims of the present study: (i) to make an objective analysis of and appraise the existing compulsory theory courses prescribed by Indian universities for B.Ed./B.T. degrees with special reference to the aims, number, titles and combinations of these courses, classification/organisation of their content, recurrence of similar topics in more than one paper, allocation of periods for theory, papers and practical work included in these papers; (ii) to examine the objectives of secondary teacher education and to make an attempt to reformulate the same so as to give them an Indian orientation in the light of the ideals of Indian society stated in the preamble to the constitution of India and the goals of contemporary national ideology; (iii) to determine what learning outcomes should form the basis for

selection of compulsory theory courses for teacher education at the B.Ed./B.T. level; and (iv) to offer appropriate suggestion for the improvement of the existing compulsory courses in the educational theory leading to the formulation of a tentative model syllabus in the light of the findings.

The present investigation was a critical and comparative survey. Three samples were drawn for the purpose of this study, namely, 2100 trained teachers from the secondary schools of U.P., thirty syllabi prescribed by Indian Universities for B.Ed./B.T. degrees, and a jury of nineteen experts. Tools used for this study were: (i) an opinionnaire administered to the jury of judges for evolving a model syllabus, and (ii) a questionnaire for the secondary school trained teachers. The syllabi sampled were examined for relevant items of secondary data. Data were quantified to facilitate analysis. Chi-square test was utilised in the statistical analysis of data.

The following were some of the salient findings: (i) out of thirty universities, twentyseven had not explicitly stated the aims of compulsory theory papers prescribed by them for the training of secondary school teachers, the remaining three had stated the aims vaguely; (ii) the number of compulsory theory papers generally ranged between four and six, and it varied from one university to another without any clear purpose or sound logical basis; (iii) there was no uniform policy adopted by the universities with regard to the titles of the compulsory theory papers; (iv) Indian universities did not seem to have adopted a uniform policy regarding combinations of theory courses; generally, they had lumped arbitrarily any two courses as sections of a single paper; (v) a large number of secondary school trained teachers mentioned that subject knowledge helped them most and training helped them least in becoming successful teachers; and (vi) while nearly fiftyfive percent of the teachers found their training only 'somewhat useful', about thirtynine percent found it really 'useful'.

*644. SHUKLA, R. S., *An Investigation into the Secondary Teacher Education Programme in Orissa — A Critical and Constructive Study*, Ph.D. Edu., Utkal U., 1976.

The main objectives of the study were: (i) to study the nature and organisation of secondary teacher education institutions with regard to location, management, duration of courses, etc.; (ii) to trace out the historical development of secondary teacher education in Orissa; (iii) to find out strong and weak points with regard to curriculum and methods of education and to examine the pattern of courses, medium

of instruction, evaluation procedure, etc.; and (iv) to study the practices in regard to admission, qualification, reservation of seats, sanctioned strength, enrolment, output and wastage.

The sample of the study consisted of thirtyfour teacher educators and 766 student teachers drawn from the six teacher education institutions of Orissa. Three questionnaires to be filled in by the office of the teacher education institutions, faculty members, and the student teachers respectively, were developed. An interview schedule of the non-directive type was also prepared for purposes of interviewing the principal and two faculty members of each teacher education institution.

The major findings were as follows: There were five state controlled and one NCERT controlled co-educational teacher training institutions in Orissa. Emphasis of the curriculum was more on theory and less on practical aspects. The curriculum paid little or no attention to the content knowledge of the student teachers and the evaluation of student teaching was far from satisfactory. The admission of candidates into the teacher education institutions was not based on any admission test. The procedure followed was subjective and it varied from institution to institution. The staff-student ratio was found to be 1:19. About fiftythree percent of teacher educators did not possess the qualifications recommended by the Education Commission of 1964-66. The physical facilities provided in the institutions were not satisfactory.

645. SINGH, H. L., *Measurement of Teacher Values and Their Relationship with Teacher Attitudes and Job Satisfaction*, D.Phil. Edu., BHU, 1974.

The present study was an attempt to know precisely what were the dominant values of the teachers, whether their attitude towards their profession was favourable or not, and whether they were satisfied with their jobs or not. Ultimately, the study was concerned with examining the nature of relationship between teacher values, attitudes and job satisfaction. An important phase of the study was the construction and standardisation of a "Teacher Value Inventory."

The study was conducted in two phases. In the first phase, the Teacher Value Inventory (TVI) was constructed and standardised. In the second phase the TVI was administered and relationship between teacher values, attitudes and job satisfaction was studied. The sample consisted of 517 higher secondary school teachers of the union territory of Delhi for standardisation of the TVI. For the study of relationship bet-

ween values, attitudes and job satisfaction a different sample of 521 teachers was selected on the basis of stratified random sampling. Management, location and type of school (boys, girls) formed the criteria for stratifying and selection. The tryout was carried out on 300 teachers not included in these two samples. Split-half reliability and concurrent validity of the instrument were found to be quite satisfactory. The TVI was also validated on the basis of the known groups. The final form of the TVI consisted of one test booklet (bilingual), one separate answer sheet, manual and a set of scoring keys. In addition to this, the Ahluwalia's Teacher Attitude Inventory, modified version of the Roth's Staff Satisfaction Survey, and personal data sheet were also administered to collect the data.

The findings of the study were: (i) Teachers scored the highest on social and theoretical values and the lowest on economic and political values; (ii) age of the teacher did not make any difference to his values; only religious and political values differed due to age; (iii) level of education, training, management of school, location and size of the school had no significant bearing on values of teachers; (iv) values of teachers also differed according to the subjects they taught; (v) the professional attitudes of teachers were favourable and their attitude towards child centred practices and educational process was more favourable than their attitude towards teaching as a profession, classroom teaching, pupils and teachers; (vi) there was no difference in the attitude of teachers due to difference in age; male and female teachers differed in their attitude; (vii) teachers were found to be moderately satisfied with all factors of job satisfaction except with economic benefits, physical facilities and administration; (viii) there was no difference in the level of satisfaction of teachers due to difference in age; female and unmarried teachers were more satisfied with all the factors than the male and married teachers; (ix) there was significant positive relationship between scores on theoretical and social values and scores on attitudes; contrary to this there was a negative relationship between scores on economic and political values and scores on attitudes; (x) relationship between scores on values and scores on job satisfaction was more pronounced; teachers scoring high on theoretical values were significantly satisfied with their profession; similarly teachers scoring high on social values were also highly satisfied; contrary to this, teachers scoring high on economic and political values were not satisfied with their profession; the relationship was negative and significant in the case of economic values and political values;

and (xi) there was a positive and significant relationship between scores on attitudes and scores on satisfaction.

*646. SINGH, H., *Adoption and Discontinuation of Innovations in the Preparation of Secondary School Teachers in India, Ph.D. Edu., MSU, 1977.*

The study had the following objectives: (i) to find out to what extent innovations recommended by different commissions and committees have been adopted by the secondary school teachers training institutions in India; (ii) to find out how far these adopted innovations have been maintained or discontinued by these institutions; (iii) to find out whether institutions under three different types of control, viz., private management, government management, and universities differ with respect to the adoption and maintenance of innovations; (iv) to study how decisions for the adoption of innovations are made in these training institutions; and (v) to suggest measures how training institutions may be made more prone to the adoption of innovations.

The present study employed descriptive survey method of research. All the secondary teacher training institutions in India were approached for the data through the questionnaire for studying innovations adopted and discontinued by them. Out of them only 209 institutions responded. For studying decision making process for the adoption of innovations, 200 teacher educators from forty training institutions (ten percent training institutions from each of the four educational regions) were interviewed. A sample of 200 student teachers selected from the forty institutions were used for the fulfilment of objectives one and four. The syllabi prescribed for the Bachelor of Education and Bachelor of Teaching courses of fifty universities were analysed. A questionnaire developed for the purpose and interview were used as tools for the collection of data.

The following were some of the conclusions of the study: (i) Only a limited percentage of secondary teacher training institutions (from 6.6 percent to 11.4 percent) had adopted objective criteria and standardised procedures for admission. (ii) About 85.6 percent of secondary teacher training institutions prescribed flexible methods of teaching for student teachers. (iii) About 56.9 percent to 82.2 percent of the institutions had adopted activity and group discussion methods of teaching. (iv) About 85.1 percent of the institutions gave weightage to internal assessment. (v) Institutions which had adopted innovations had been able to maintain them. (vi) Frequently discontinued in-

novations were those that involved heavy expenditure for which training institutions had to depend on other financing agencies. (vi) The adoption of innovations related to admission, foundations course, experiences at laboratory phase, practice teaching and methods of teaching were not related to the nature of institutions. (viii) The adoption of innovations related to the areas of noninstructional activities, evaluation, teacher educators' inservice education, and organisation and administration showed mixed results. (ix) Institutions which had teacher educators exposed to foreign influences through visits, literature and other means of communications, had been able to adopt a large number of innovations. (x) Decisions regarding the adoption of a large number of innovations had been made by external agencies without involving the actual practitioners. (xi) Teacher training institutions in India had not developed experimental attitude towards new ideas, methods and practices. (xii) A number of inhibiting forces existed in the training institutions for the adoption of innovations related to administrative and financial matters.

*647. *SRIVASTAVA, B. D. and SINGH, S., Developing a Realistic Programme for Teacher-Educators on the Basis of an Analysis of their Professional Jobs, Vidya Bhawan G. S. Teachers' College, Udaipur, 1976. (NCERT financed)*

The aims of the study were : (i) to find out how adequately the existing specialised courses in teacher education at the M.Ed. level were preparing teacher educators for our teachers' colleges; and (ii) to evolve a more satisfactory programme on the basis of the actual jobs that our teacher educators have to perform in their institutions.

In order to study the job specifications of the teacher educators, a questionnaire-cum-rating scale was prepared covering the areas (a) student teaching, (b) theory teaching, (c) tutorial work, (d) guidance in research, (e) organisational responsibilities, (f) professional growth and professional leadership, and (g) guidance and participation in co-curricular programmes. While the questionnaire-cum-rating scale was sent to all the teachers' colleges of some standing in India, fifteen colleges of education, five in each of the three States of Rajasthan, Madhya Pradesh and combined Punjab and Haryana were selected for personal visits, interviews and on-the-spot observation of the actual duties being performed by the teacher educators. Three hundred and eight teacher educators belonging to different teachers' colleges of the country filled up and returned the questionnaire. Fifteen

educationists, twenty education department officials, and fifteen teacher college principals were interviewed about the duties and responsibilities of the teacher educators in their institutions. The education codes of the various states were also consulted for this purpose. Thus, a list of the duties and responsibilities of teacher educators emerged on which there was general agreement. The investigators then examined the syllabuses of the specialised teacher education courses at the M.Ed. level in Indian universities in the light of the actual duties and responsibilities of the teacher educators that emerged as a result of this study. A model curriculum in teacher education for the M.Ed. course in Indian universities was also prepared.

Among the important findings were the following : (i) It was found that the existing teacher education courses of the M.Ed. examinations of different Indian universities completely neglected most of the practical duties that teacher educators had to perform. An effort was made to remedy this defect in the syllabus proposed by the study. (ii) Education codes expected teachers to cultivate healthy attitudes, use methods tailored to the needs of individual students, provide opportunities for group activities, equip themselves with the latest knowledge, participate in co-curricular activities, enlist parental cooperation, maintain records of students' achievements, avoid negative measures like punishment, etc. (iii) Educational personnel expected the teacher educators to know the subject well, be acquainted with the latest researches and methods of teaching in the field, have the first hand knowledge and experience of school teaching, be able to produce good and successful teachers, understand the realities of the changing social order, etc.

648. *SUKHIA, S. P., Evaluation of Current Supervisory Practices, D. E. I. Women's Training College, Agra, 1973. (NCERT financed)*

The objectives of the study were : (i) to analyse the job of a supervisor; (ii) to survey the current supervisory practices; (iii) to outline the duties and functions, the professional skills, the personality characteristics and the academic qualities of an efficient supervisor; (iv) to estimate the nature and degree of the lack of contiguity between the objectives (ii) and (iii) as mentioned above; and (v) to suggest ways and means for bridging the gap between the same.

The study was delineated to the supervisors of the training colleges/departments of education in institutions affiliated to Agra University. The sample consisted of twelve principals of the secondary teachers' training colleges/heads of the B.Ed. departments

of arts colleges, supervisors of twelve teachers' training institutions which cooperated in this study, 289 principals and teachers of the practising schools connected with the twelve teachers' training institutions taken into this sample, and sixtyfive experienced supervisors taken from all over the country. Data were collected through three questionnaires, a rating scale, an observation sheet, and a lesson plan analysis chart.

The findings of the study were : (i) The supervisors helped the student teachers in choosing proper schools, in having the teaching unit from the school, and in preparing the lesson to be taught. They helped student teachers in developing logical sequence of questioning and developing self-confidence and use of proper teaching aids. (ii) The supervisors also saw that student teachers adopted proper teaching behaviour in the classroom and managed the class with proper discipline. (iii) The supervisors understood their students fairly well and taught them effectively by displaying all the professional teaching skills that might be helpful for the student teachers in actual teaching. (iv) Supervisor-student teacher ratio was found to be 1:15 for supervision of the student teachers, whereas the university had prescribed that this ratio should be 1:12. (v) Secondary training colleges had no practising schools of their own. (vi) Most of the training colleges had inadequate library facilities, had very little provision for journals, and had inadequate accommodation and administrative staff. (vii) In most of the colleges no evaluation chart was used to assess the day to day teaching of the student teachers. There seemed to be apathy to literary and cocurricular activities in most of the institutions. (viii) Too much emphasis was placed on assigning classes of their own choice to student teachers. (ix) Only Herbartian or evaluation approach of lesson planning was followed. (x) In supervision, too much emphasis was laid on student teachers' correcting the incomplete or partially correct responses of the pupils in a very formal and time consuming manner, maintaining of discipline in the classroom rather mechanically, taking a very serious view of the mischiefs committed by the pupils and punishing them harshly. (xi) Supervisors sometimes maintained unnecessarily wide distance from the student teachers which obstructed free exchange of ideas and smooth interpersonal relations between them. (xii) The supervisors were hardly serious in matters of professional growth. They seemed to be averse to innovations in teaching and improving their own teaching through research. (xiii) Supervisors devoted only about eight minutes to supervise the student teachers' actual classroom teaching in a period of forty minutes.

649. *SUKHWAL, K. D., Attitudes of Married Lady Teachers Towards the Teaching Profession, Ph.D. Edu., Udaipur, U., 1977.*

The objectives of the study were : (i) to assess the attitudes of married lady teachers towards the teaching profession; (ii) to develop a tool for assessing these attitudes; (iii) to study the problems of married lady teachers with reference to their dual role in their homes and their profession; and (iv) to analyse causes of their selecting this job.

Normative survey method was adopted for the study. An attitude scale and an open-ended questionnaire were the tools used for collection of data. The married lady teachers were selected by random sampling technique from the government girls' secondary schools in Rajasthan. As many as 500 married lady teachers selected from fifty schools of five administrative divisions of the state were involved in the study.

The major findings were as follows : (i) Majority of the teachers favoured the profession; the differences between the favourable and unfavourable attitudes were highly significant. (ii) The higher the age, the greater was the increase in the degree of favourableness in attitudes towards the profession. (iii) Experience played a great role in the development of favourable professional attitudes. (v) Qualification-wise there was an increase in the favourable attitude towards the profession with the increase in qualifications. (v) Trained teachers were found to possess more favourable attitudes towards teaching than the untrained teachers. (vi) Personal, social, educational, financial, professional, family and miscellaneous factors operated in selecting the profession. (viii) The problems faced in the actual field of work were found to be related to the areas of personal, family, financial, leave time and educational. The area 'personal' accounted for the maximum number of problems and the area 'educational' accounted for minimum number of problems.

*650. *THAKKAR, V. R., A Study of Potential Teacher's Effectiveness - Their Educational Attitudes in Relation to their Rapport with the Students and their Survival and Job Satisfaction in the Profession, Ph.D. Edu., MSU, 1977.*

The study had the following objectives : (i) to study if teachers with high rapport (as rated by pupils) differ significantly from teachers with low rapport, in their educational attitudes; (ii) to examine if teachers with stronger tendency for survival differ in

their educational attitudes from those with less intense tendency for survival; and (iii) to investigate the relationship between survival and rapport, between job satisfaction and rapport, between age and rapport, and between experience and rapport.

A total of 497 trainees (240 males and 257 females) studying in B.Ed. colleges in the State of Gujarat selected using the stratified random sampling technique formed the sample. The following were the tools used: (i) Educational Opinion Inventory (by N. L. Gage and Morris Weitman), (ii) Pupil Inventory (by F. J. McDonald and N. L. Gage, translated and adapted by A. S. Patel), (iii) Teacher Efficiency Inventory (by A. S. Patel), (iv) Survival Scale constructed by the investigator, and (v) Job Satisfaction Scale constructed by the investigator. On the basis of scores obtained, the subjects were divided as, (i) High Rapport subjects (H. R.) and Low Rapport subjects (L.R.), (ii) Supervisors (S) and non-Supervisors (N.S.) and (iii) High Job Satisfiers (H.J.S.) and Low Job Satisfiers (L.J.S.). Scores were analysed to find out the significance of difference between the groups.

The major findings of the study were: (i) the differences in most of the categories of educational issues and attitudes between H.R. and L.R. were not significant; (ii) There was no statistically significant difference in most of the categories of educational issues and attitudes between S and N.S.; (iii) there existed a significant negative correlation between age and rapport; and a significant positive correlation between job satisfaction and rapport; and (v) there was no correlation between experience and rapport, and survival and rapport.

651. THAKUR, R. K., *A Critical study of Superior Teachers at Secondary School level and their Problems, Ph.D. Edu., Bom. U., 1973.*

This study aimed at (i) preparing a tool and thus identifying superior teachers at secondary level; (ii) studying the factors helpful to teachers; and (iii) studying the special problems of superior teachers apart from the general problems of teachers as a whole.

The study was a descriptive survey. The sample included 400 teachers selected from eightyfive schools in the union territory of Delhi drawn on a random basis. A rating scale was used to identify superior teachers. A questionnaire (personal data form) was used to study the factors helpful to superior teachers. A problem checklist was used to survey the problems of superior teachers. Chi-square and t test were used in the analysis.

The study showed that (i) brilliant academic career upto intermediate level, fine performance in professional training, reasonably good salary, less time spent on remunerative work other than that of school, experience in teaching profession, being vice-principal or head of a department in the school and sound professional interests such as participation in school activities, reading educational journals regularly, contributing articles to them, working as examiner or paper setter in public examinations, attending inservice education programmes, being a member of educational organisation and obtaining recognition for any outstanding work as a teacher were the important factors helpful to superior teachers; and (ii) lack of social recognition of the teaching profession, inadequate facilities for reference material and other teaching aids, lack of group spirit in teachers for carrying out new experiment, curriculum unsuited to individual needs and progressive values of education, lack of counselling and guidance service, defective inspection system, no economic assistance for attending national seminars or workshops, poorly chosen textbooks, sharp criticism for any new idea from fellow teachers, lack of encouragement for trying new ideas, no recognition of the work, unfair promotions of students, too many committees to work on, poor attendance and poor leadership role of the principal, were in order of their intensity the characteristic problems of superior teachers.

*652. VAZE, N. A., *Effects of Modeling and Microteaching on the Acquisition of certain skills in Questioning, Ph.D. Edu., MSU, 1976.*

The main objectives of the study were: (i) to develop different types of models depicting the use of three different skills (probing, convergent and divergent questioning) in asking questions; (ii) to study the effects of modeling and microteaching on the acquisition of these skills in questioning at different stages of the acquisition; and (iii) to study the effects of training in questioning skills on the classroom performance.

The study was conducted in three phases. The first phase was a pilot stage in which the sample consisted of eighteen student teachers from B.Ed. Class of Faculty of Education and Psychology, Baroda. In the second phase the sample consisted of the thirty student teachers from the Government College of Education, Ratnagiri. The thirty student teachers were divided into three groups, each group having four student teachers offering Hindi, geography and science as one of their methods. The third phase was organized with another batch of thirty student teachers

out of which twenty were having either English or Marathi as one of their methods. Every student teacher from the three experimental groups completed four lessons in each of the three skills in questioning under the three treatments with inservice primary teachers acting as students. The treatment consisted of exposing the three groups to three treatments, namely, symbolic modeling, audio modeling and microteaching. The tools used in the study were : (i) Lesson Evaluation Proforma for Supervisors, (ii) Proforma for Microteachers, (iii) Teaching Skills Evaluation Proforma — Probing Questioning, (iv) Teaching Skills Evaluation Proforma — Convergent Questioning, (v) Teaching Skills Evaluation Proforma — Divergent Questioning, (vi) Rating card of the Pupil Teachers' Performance, and (vii) Self Evaluation of Microteaching Programme. Analysis of variance was used for analysing data.

The findings revealed the following : (i) Microteaching appeared to be the best treatment for acquiring the skill in asking probing questions when tried at the beginning of the academic year. The symbolic modeling treatment did not differ significantly from audio modeling treatment. (ii) Symbolic modeling appeared to be the best treatment for acquiring the skill in asking probing questions followed by audio modeling, and microteaching coming out to be the least effective treatment when tried with predominantly language oriented group. (iii) Microteaching appeared to be the best treatment for acquiring the skill in asking convergent questions followed by audio modeling, and symbolic modeling coming out to be the least effective treatment when tried with predominantly language oriented group.

653. VENKATARAYAPPA, K. N. and MUKTA, L., *A Sociological Study of Primary School Teachers in Mysore City, Dept. of Post-graduate Studies and Research in Sociology, Mysore, 1971. (Mys. U., financed)*

The investigation aimed at studying the different

aspects of the life of the primary school teacher, namely, school, family, community, economic conditions, and his attitude towards certain social problems.

The sample for this study comprised fifty per cent teachers of each sex group from the two major types of schools — public and private. In all seventy-six men and 167 women teachers from public schools and twenty men and sixtyseven women teachers from private schools were selected. Half of the sample belonged to the age group of thirty to forty. The data were collected through a questionnaire containing multiple choice type and open ended questions.

The major findings of the study were : (i) educational achievement of the teachers was found to be very poor and had remained unchanged through a number of years; (ii) their economic achievement was found to be poor and unchanged over a number of years; (iii) teachers in large number came from families of low income group; their status was low and they belonged to their parents' class of society; (iv) their restricted friendship with teachers in general and nonparticipation in the local bodies or community organisations made their recognition vague in the public; (v) by the nature of their occupation they were found to influence the community besides moulding the child, as change agents and builders of democracy; and (vi) in popularising and implementing family planning they were considered competent enough.

*654. WADHWA, S., *A Study of some Background Factors of Graduate Teachers' Adjustment, Ph.D. Edu., Meerut U., 1977.*

The present study investigated the relationship between teachers' adjustment and its background factors. The study included 120 teachers in Economics teaching at graduate colleges affiliated to Meerut University. The results indicated that only college environment and teachers' acceptance in the college were, perhaps, related to teachers' adjustment.