

Teacher Education

A Trend Report

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INTRODUCTION

Of late, teacher education has received special attention from the educational planners as well as the educational researchers. The teacher is now considered as the main spring for all educational innovations in every country. In India, teacher has always enjoyed a prominent position in the system of education and his behaviour has been watched with utmost care and caution from the earliest days. Now in free India, again the teacher and his preparation has received a limelight from the expert bodies reporting on the reforms of education. It is obvious that the future of a nation depends upon the quality of the teachers, the country has.

Hence it is in the fitness of things that more and more research studies are focussed on the problems of teacher education in India and abroad. The present teacher education practices are now challenged and the role of the teacher in a changing society is re-assessed from a scientific viewpoint. The concept of a good teacher of the past is no more valid in the present context of education. Teacher effectiveness and teacher behaviour are the new targets towards which the educational researchers are heading with the help of scientific tools of measurements. Various individuals and institutions have undertaken research studies on different aspects of teacher education in India.

This chapter includes twentyseven doctoral theses and nineteen research projects completed in India so far. However, the analytical studies on teacher behaviour are discussed in the previous chapter. The studies under review have been classified as follows:

- Area I — Selection criteria, abilities and qualities of teachers (8+3*).
- Area II — Preservice and inservice training of teachers (8).
- Area III — Workload, job expectations and difficulties experienced by teachers (8+1*).
- Area IV — Procedures and practices of teacher education in India (12).
- Area V — Personality variables of teachers (10).

It is felt from the review of the above studies that the themes have been repeated by some investigators on different samples and in different geographical areas. Most of the studies are descriptive in approach using historical development, survey through questionnaires and interview techniques. There is no study which covers the whole country in any single aspect of teacher education. All the studies relate to the teachers of elementary and secondary schools except one which is a survey of the problems and attitudes of university teachers of Bihar universities. The details of the studies are given below.

SELECTION CRITERIA, ABILITIES AND QUALITIES OF TEACHERS

A few studies on selection, qualities and characteristics of successful teachers have been made. Jayamma (1962)* constructed and standardised an 'Inventory for Predicting Teacher Efficiency' for the primary school teachers of Mysore State. Anand (1961) tried to make an assessment of teacher qualities for the selection of male school teachers. A

* The abstracts of these studies are given in Chapter 12, but they are referred to in this trend report.

study on evaluation of professional efficiency of primary school teachers in service was conducted by Prasad (1970)*. An analytical study on the quality of teachers under training has been carried out by Adaval (1952)*. Bhattacharya and Shah (1966) developed an instrument for the selection of primary and secondary school teachers. Pandya (1972) designed a test to measure the various traits needed to be present in an individual to become a good professional in teaching. Sherry (1964) prepared a battery of psychological tests for prediction of success in teaching. An aptitude test for secondary school teachers was constructed and standardised by Shah (1962). Pandey (1968) and Sharma (1969) also developed teaching aptitude tests for elementary school teachers. Sharma (1970) studied the objectives of undergraduate teacher education. Tiwari (1968) made an enquiry into the cultural background and the necessity of cultural training of pupil-teachers in Basic Training Institutions of Madhya Pradesh. He found a positive correlation between the cultural background of the trainees and their educational achievement.

The variables with regard to the qualities of teachers generally studied are (i) professional knowledge and skill, (ii) acquaintance with the principles of psychology, (iii) class management, school organisation and educational administration, (iv) relationship with others and (v) individual qualities of humour, patience and sympathy. Prasad (1970)* studied one more variable of organising activities related to school-community relationship. For the assessment of qualities relevant to success in teaching, generally three approaches for estimating teacher performance were followed, viz., ranking by class students, by colleagues and heads of institutions. An effort seems to have been made through psychological tests for prediction of success in teaching to test the hypotheses: (i) teaching effectiveness is associated with physical, intellectual, social and emotional equipments of the teachers; (ii) success in teaching is determined by the teacher's interest in children and teaching; (iii) success in teaching is related to the teacher's attitude towards teaching; and (iv) a combination of measures of intelligence, personality, interest and aptitude may give a better prediction of teaching efficiency than any single test.

In respect of methodology, investigations in the area mainly depend on questionnaire and interview. There are a very few studies which use certain tests and inventories. The study on the quality of teachers under training by Adaval (1952)* may be distinguished from other studies. A test of general knowledge, self-administering test of mental ability and test of

aptitude were used along with the medical examination conducted to evaluate physical efficiency of the teachers in his study. Findings suggest that three types of experiences—theoretical (including philosophical and psychological studies), practical application of theoretical knowledge of educational principles, and extracurricular activities should be integrated into one whole educational experience for future teachers.

PRESERVICE AND INSERVICE TRAINING OF TEACHERS

A few studies have been made with regard to the integrated pattern of teacher education, potential of carry-over of theoretical learning to the classroom situation in terms of student teacher's behaviour, impact of the extension services, needs of the inservice programmes and evaluation of practice teaching. Sharada Devi (1964) in her attempt to work out in detail an integrated pattern of graduate teacher education combining the traditional and Basic methods made a comparative study of two types of training colleges with regard to: (i) position of training colleges in the pre-independence and post-independence era, (ii) existing general pattern of training colleges, (iii) staff, (iv) selection of trainees, (v) facilities available, (vi) aims, (vii) activities, (viii) curriculum, (ix) demonstration lessons, (x) observation of lessons by trainees, (xi) teaching experience of trainees, (xii) craft work, (xiii) participation in community life, (xiv) tutorials, (xv) practice and field work, (xvi) examination, (xvii) research work, (xviii) inservice training programme, (xix) evaluation of teacher education programme and (xx) relationship with other institutions. Reddiar (1964) studied and evaluated the effectiveness of the professional competence of the teachers trained by the colleges of education. In another study by Srivastava (1970), conducted at Central Institute of Education, the investigator confined himself to the evaluation of practice teaching in teacher training institutions. An experimental study with a view to analysing the potential of carry-over of B.Ed. theory course in educational psychology to the classroom situation in terms of behaviour of student teachers was conducted by Sharma (1971). An attempt of tracing the history of inservice programme in India from its inception with special reference to agencies involved and the organisational patterns was made by Srivastava (1966). Impact of the programme of inservice education on teacher attitude was made on the basis of the result of the case studies of two extension cen-

*The abstracts of these studies are given in Chapter 12.

tres. Another study on the impact of extension services departments on school improvement in Haryana was made by Shankar (1969). The studies suggest that factors contributing to and strengthening the inservice programme may be: (i) standing of the college; (ii) quality of training college staff; (iii) quality of extension staff; (iv) practical utility of programmes; (v) cooperation of the state department of education and the inspectorate; and (vi) facilities and programmes for effective follow-up to assess the implementation of new ideas, methods and techniques. State Institute of Education, Poona (1971a) studied the need for inservice education for headmasters of the rural primary schools.

Some of the studies in the area have distinguishing features so far as their purpose, methodology and tools are concerned. Reddiar's study (1964) was a followup study of the trained graduate teachers. In the same study, classroom observation was employed as a tool to evaluate the teaching. Sharma (1971) observed the patterns of the verbal behaviour of student teachers through Flanders Interaction Analysis Category System. His was an experimental study with experimental and control groups formed on random basis. The control group was taught by lecture method, while experimental group was given the treatment of team teaching and supervised study. Analysis of classroom behaviour of a student teacher was done in terms of its relevance to the psychological understanding of the process of teaching and learning. Srivastava (1966) tried to find out the impact of inservice programme on teacher attitude in the context of the major issues in the field on the basis of case studies. Srivastava (1970) studied the practices of evaluating class teaching. He found that student teachers were more inclined in favour of a system of evaluation which was based more towards external assessment.

WORKLOAD, JOB EXPECTATIONS AND DIFFICULTIES EXPERIENCED BY TEACHERS

The National Institute of Basic Education, New Delhi (1960)* investigated to find out the difficulties experienced by the teachers of Basic schools in their day to day work, with a view to pinpointing the specific difficulties and grading them in order of priority. The data were collected from a representative sample of 409 Basic school teachers of eleven erstwhile states. A survey of the load of work on higher secondary school teachers in Uttar Pradesh was made by Pal and Ghosh (1967). Data for the investigation were

collected from higher secondary school teachers and principals through questionnaires, interviews and personal observation. The problem was studied from the standpoint of sex of teachers, area and the management. The relationship between the load of work and the efficiency of the teacher was also dealt with. The investigation revealed that (i) the service conditions and other factors contributed to developing frustration and dissatisfaction; (ii) the teacher suffered on account of low socio-economic status; (iii) the unwholesome service conditions had great impact on the physical and mental life of the teacher; (iv) teacher training did not help in minimising the workload of the teacher; (v) methods of teaching, number of school subjects taught, and the heterogeneity of the classes contributed to his load of work; and (vii) supervision of extracurricular activities after school hours and during holidays encroached upon the free time of the teacher.

A similar study on workload of teachers in secondary schools was taken by Manuel (1965) to make an objective assessment of the workload of the teachers in Madras. Another study of the workload of teacher educators in junior colleges of education in Maharashtra was conducted by State Institute of Education, Poona (1971 b). The objectives of this study were to find out the extent to which the subjects taken at the graduate level both academic and professional by teacher educators form the basis of their teaching assignments in junior colleges of education and verify the reasonableness of the prevailing complaint about overwork.

Dasgupta (1965) made an analytical survey of the emotional difficulties of teachers in secondary schools of Meerut district for his doctoral work. The sample of 1000 male and female teachers on the basis of stratified random sampling was utilised for the study. It was found that children's annoying behaviour caused greatest concern to women teachers. Lack of experience also caused difficulties. Wrong placement of the fresh teachers in the schools created problems. Frustration among the teachers was felt because of lack of proper discipline in the school. Lack of vision for good setting and proper motivation for the teachers towards teaching profession, financial difficulties of the teachers, insecurity of job in privately managed schools, etc., were also some of the causes of frustration among teachers. Chatterji (1966), in his doctoral work on some studies in discrimination between teachers and nonteachers of similar job status in terms of identification with significant childhood authority figures, judged objectively the crucial differences between primary and secondary school teachers on one hand and nonteacher employees of

* The abstracts of this study given in Chapter 12.

similar job status on the other. A crucially important fact revealed by the study was that teachers both at primary and secondary levels were found to possess different models of identification pattern from those possessed by the nonteachers.

The study by Marr and Sabharwal (1968) intended to investigate into the socio-economic background, motivation to teach, job aspirations and expectations regarding conditions in the jobs of the student teachers. Arora and Chopra (1969) made a study of the status of teacher educators working in elementary teacher training institutions of various states. Bhatnagar (1971) for his doctoral work studied role expectation, role performance and training needs of subject matter specialists working in Jawaharlal Nehru Agricultural University and State Department of Agriculture, Madhya Pradesh. He found that there were significant identical roles to be performed by both categories of subject matter specialists and there was a high consensus among the 'role set' on expectation, performance and training needs.

Studies in this area indicate a trend of using larger samples and covering wider areas with statistical analysis for assigning priorities, establishing relationships and verifying the reasonableness of the prevailing difficulties. Studies on job aspirations and expectations (Marr and Sabharwal, 1968; Chatterji, 1966; Bhatnagar, 1971) indicate that the general feeling of belief that the persons come to the teaching profession as the last resort is not borne out by evidence, rather deeper motivation, conscious desire to serve, do come into play in the choice and the continuance in the teaching profession.

PROCEDURE AND PRACTICES OF TEACHER EDUCATION IN INDIA

A number of studies have been conducted by individuals and different agencies on teacher education patterns at different levels prevailing in different states of India. State Institute of Education, Poona (1965) made a status study of preprimary training colleges in Maharashtra to know the patterns of organisation of preprimary training institutions in the state, to investigate into the academic aspects, and to study the overall picture of the financial status of the institutions.

Upasani (1966) for his doctoral work made an evaluation of the existing training programme for primary teachers in Maharashtra State with special reference to rural areas. The major aim of the study was to examine the hypothesis that the existing pri-

mary teacher training programme in Maharashtra does not achieve fully the objectives of the training and that the present inspections of the training colleges fail to evaluate the effectiveness or otherwise of the training programmes in all its aspects. The author recommends that there should be a special agency for the supervision of training colleges (other than education officers, who are otherwise busy) with a special officer at the directorate level; the duration of the primary teacher training should be of two years and acceptance of a wider concept of teacher education to provide opportunities to student teachers to acquire various skills. Banerjee (1967) in his doctoral study on training of primary teachers in India has made these suggestions: (i) a training college has to address itself to the task in a spirit of high mobilisation, adventure and faith; (ii) inservice training of primary teachers is important to enable the teacher to grow intellectually in the course of his daily classroom work; (iii) to remove the backlog of untrained teachers, summer courses should be introduced which improve their academic and professional qualifications; and (iv) supervision should be done by State Institutes of Education, and the rural teacher should undertake both classroom teaching and social service.

In another investigation, Joseph (1967) studied closely the system of preparation of secondary school teachers in Kerala. A detailed survey of nineteen training institutions in the state was conducted to find out and study the conditions prevailing in them. The trends, that stood out, were the gradual improvement in the qualifications of the trainees, the better qualification of women teachers, greater number of women and the general increase in the number of science graduates. Mallaya (1968) studied the modern trends in teacher training programme and the problems of teacher training in Madhya Pradesh with a view to suggesting ways and means to make it more effective. The study revealed that the preprimary teacher training facilities were insufficient in Madhya Pradesh and Montessori training was very costly and needed reorganisation. It was observed that there was no proper dissemination of research findings in the field. State Institute of Education, Gujarat (1966) conducted case studies of primary teacher training institutions of Gujarat and emphasised the need for providing science laboratories, reading rooms, equipping libraries and organising refresher courses for staff members. The same institute (1965) also studied the problems of the trainees of the primary teacher training institutions of Gujarat in a separate research project. The study revealed the need for the modification of the syllabus.

Gupta (1971) studied the existing admission procedures in elementary and secondary teacher training institutions and emphasised the need for a suitable selection procedure so that the best candidates could be admitted to the training colleges. Saikia (1971) for his doctoral work, studied the problems of teacher education at the secondary level in Assam to find out the causes for the ineffectiveness of teacher training programme (at the secondary level) in Assam, and to suggest some remedial measures. The study revealed that none of the trained teachers prepared lesson plans for their work. This discrepancy was attributed to the training course itself and the conditions under which a trained teacher had to work in a school. Patel (1971) made a critical evaluation of the organisation of audio-visual education training programme in the secondary school teachers' training colleges in India. Curriculum was found to be inadequate in most of the training colleges. There was an acute shortage of the qualified and experienced staff. The topics taught in the theory of audio-visual education were of elementary nature. A limited practical experience was given in the field.

PERSONALITY VARIABLES OF TEACHERS

There are several studies which investigated the personality variables of the teachers such as attitude, aptitude, intelligence, interest, adjustment, etc. Banerji (1956b) analysed the various factors associated with assessment of ability in the Diploma of Licentiate in Teaching examination of the Education Department, Uttar Pradesh. The purpose was to investigate how far all the subjects of the L.T. examination taken together made a compact homogeneous whole and to what extent graduates of the university possessed any general qualities and attainments which could help them in the specialised studies of the training colleges. In another study, Banerji (1956 a) investigated into the interrelationship of the two aspects of training, viz., practice teaching and theoretical studies to ascertain to what extent these two aspects are related to general intelligence and teaching aptitude as measured by objective tests. The results of the study showed that (i) intelligence and clear thinking were the basic qualities necessary for making a good and efficient teacher and (ii) successful class teaching needed qualities like quick thinking, ready wit, easy adaptability and humour which was thought to make teacher bright and smart in the class.

Through a pilot study on the level of intelligence of Marathi and Gujarati teachers conducted by Research Unit, Bombay Municipal Corporation

(1957), the possibility and usefulness of introducing tests of general ability in the selection and recruitment of primary teachers was investigated. Bharadwaj (1959) in his study aimed at finding out the vocational interests of students (both male and female) taking teacher training courses with the help of occupational and vocational scales combined into an interest record. Verma (1968) investigated into the impact of training on the values, attitudes, personal problems and adjustment of teachers with a major aim to study whether teacher training made a favourable impact on the values, attitudes, personal problems and adjustments of student teachers and how these variables were related to one another. Impact of teacher training programme on the attitudes of student teachers towards children and school work had been consistently favourable, there being a significant gain in scores at almost all points of the scale. Sinha (1969) surveyed the problems and attitudes of university teachers in Bihar to examine how their problems and attitudes were related to some specific factors. The survey indicated that a little less than half (48.5 percent) of the teachers had selected the profession on their own choice. Chaturvedi (1970) tried to find out the personality variances among students and teachers on the assumption that causes of student teacher deviation were associated with the personality factors of both students and teachers. The analysis of the data revealed that the teachers and the students showed definite trends of deviancy and deviated students and teachers had definite traits of personality maladjustment and disorders. Dwivedi (1970) in a study of personality structures of teachers and students and their relationship, investigated into the attitude of teachers towards students and that of the students towards teachers as well as the value patterns of boys, girls and teachers in theoretical, economic, social, political, aesthetic and religious areas. Mehta (1971) sought to study the attitudes of primary Basic teachers towards community life and craft to prepare a special programme to bring out a positive change in their attitudes. Some of the salient findings were (i) student teachers who offered carpentry had more favourable attitudes towards the community life than those offering spinning and weaving; (ii) women student teachers had more favourable attitudes towards community life than male student teachers; and (iii) the remedial programme affected the attitudes in varying degrees.

Kaul (1972) in his doctoral work made a factorial study of certain personality variables of popular teachers in secondary schools. Some of the results of the study were that the popular teachers distinguished themselves as more outgoing, intelligent, emotion-

ally stable, sober and conscientious, venturesome, tough-minded, shrewd, placid, controlled and relaxed. The popular teachers were significantly high on theoretical, social, political and religious values and were significantly low on economic and aesthetic values. They had a favourable attitude towards teaching in schools. They were found to be effective in their work as teachers.

A perusal of the studies in the area indicates a trend towards the study of personality variables of teachers such as attitude, aptitude, intelligence, interest, adjustment, etc., from various angles, whereas Banerji (1956 a) tried to investigate how far theoretical subjects made a compact homogeneous whole as a general quality which outweighs the rest, all of which are essential for a thorough theoretical preparation for the teaching position on the basis of marks. Verma (1968) used normative survey method to investigate into the impact of training on the values, attitudes, problems of adjustment and how these variables are related to one another. Sinha (1969) surveyed the problems of attitude of university teachers, whereas the most of the studies confined to elementary and secondary school teachers. In one study (Chaturvedi, 1970) there seems to have been an attempt to find out the personality variances among students and teachers. Case history method has been used in this study. Bharadwaj (1959) attempted at finding out the vocational interests of student teachers. For comparison, he used a cross sample of preoccupational group of medical college students, veterinary college students and experienced teachers of higher secondary grades, rated as successful by their principals. At methodological level, some of the studies employed standardised tests and analysed the data through statistical rigours. Bharadwaj (1959) based his study on factor analysis and Chaturvedi (1970) tried to find out personality structure through variance as a result of social and environmental factors.

RESEARCH NEEDS

It is clear from the review of the available studies that several areas remain unexplored by the research workers in the field. Some of the areas suggested for further research in teacher education are (i) identification of the goals of teacher education in India in view of the new social order; (ii) role and function of a trained teacher as a change agent in India; (iii) effectiveness of teacher education programme in view of new goals of education in free democratic India; (iv) relationship between student expectations and teacher effectiveness; (v) relationship of community expectations and the programme of teacher education; (vi) self-image and self-concept of trained teachers in our schools; (vii) requirements of teacher preparation for higher education institutions; (viii) interpersonal perceptions of elementary, secondary and college teachers; (ix) need and scope for preservice and inservice training programmes for university teachers; (x) correlation of financial provision with the quality of teacher preparation at the elementary and the secondary levels; (xi) effectiveness of different methods of training teachers at various levels; (xii) preparation of effective evaluation techniques in view of new goals of teacher education; (xiii) evaluation of effectiveness of correspondence courses for teacher preparation; (xiv) significance of incentives following inservice training of teachers; (xv) admission procedures of teacher training institutions and the performance of trainees; (xvi) self-image of teacher educators as professional workers; (xvii) leadership qualities of the principals of teacher training colleges; (xviii) selection criteria of teacher educators in India; (xix) evaluation of instructional materials used in teachers' colleges; (xx) medium of instruction in training colleges and performance of trainees; and (xxi) evaluation of role and function of professional organisations of teachers and teacher educators.

ABSTRACTS : 565-610

565. ANAND, K. K., *Selection of Men School Teachers (Assessment of Teachers' Qualities through Projective Tests)*, Ph.D. Psy., Pan. U., 1961.

The main purpose of this investigation was to determine the usefulness of certain psychological tests of the projective type in the assessment of qualities relevant to success in teaching.

The investigation was split up into the following four, more or less, distinct phases: (a) definition of personal characteristics which distinguish competent from incompetent teachers; (b) collection of adequate "teacher-competence" measures to be used as external criteria for the validation of psychological assessment based on the tests; (c) development of projective tests for the assessment of teachers' characteristics; and (d) production of evidence about the reliability and validity of the psychological assessment. For stage 'a', fifty teachers were requested to give descriptions of the various characteristics of an efficient teacher. A graphic rating scale for the purpose was developed and used. For stage 'b', fifty teachers were selected for the purpose of assessment. The three approaches to estimate the teachers' performance were as follows: rankings by class students, colleagues and heads of the institutions. For stage 'c', three tests, viz., the Thematic Apperception Test, a free word association test and a sentence completion test, consisting of fourteen pictures, twentyfive words and twentyseven sentences, respectively, were used. Data with the help of description were also collected. At stage 'd', ideal type of validation procedure, viz., predictive validity was not followed. Only the concurrent validity against obtained 'teacher competence estimation' was established. The estimated true validity, after applying correction for attenuation in the light of coefficients, was found to be encouraging. It may also be noted that the validity was worked out in non-incentive situation (i.e., research situation) and was established against a composite criterion of teacher competence made of a number of heterogeneous components or dimensions. For second stage related to 'criteria of teacher competence', 105 teachers from seventeen schools were put through psychological tests. Three independent estimates for each teacher were obtained from pupils, peers and principals. Pupils ranked all the teachers of their class and these ranks were pooled to get an overall rank of a teacher. The inter-pupil ag-

reement in rankings was represented by r of .62.

Analysis of variance suggested that teachers of mathematics and English were ranked higher than the teachers of drawing. Pupils' ranks also agreed more for qualities like expression, sympathy, loveliness, beauty, etc. In the case of principals' ratings, the analysis of variance was worked out which suggested significant differences between principals' ratings as well as between qualities. A further fact was revealed that principals did not rate at random. This meant that principals' ratings could be justifiably used for within school differentiations. The correlation coefficient between pupils' and principals' ratings was .44 which was significant.

566. ARORA, K. and CHOPRA, R., *A Study of Status of Teacher-Educators Working in Elementary Teacher Training Institutions*, Dept. of Teacher Education, NCERT, New Delhi, 1969.

The purpose of the investigation was to study the socio-economic and educational backgrounds of teacher educators in elementary teacher training institutions of various states.

Data were collected through a questionnaire which included questions on personal data, educational background, occupational background, information about work, economic status, family and social affiliations. The sample enclosed 318 teacher educators. The responses were analysed in terms of percentages.

The following were some of the salient findings. The minimum qualification of the teacher educators at elementary teacher training institutions was graduation or diploma in education; about forty percent were better qualified—two percent had first division and twentyfive percent had secured second division at master's level. Mostly, teacher educators had teaching experience in secondary schools which ranged from five to thirty years. The majority of teachers had to teach atleast two subjects—thirty percent had to teach one subject, forty percent two subjects, nineteen percent three subjects and four percent four subjects. Some teacher educators had to do examination work and most of them had to do clerical work. No inservice education programme was organised for teacher educators. About fifty percent had bicycles, radio or sewing machines.

whereas very few possessed cars, scooters, motor cycles and refrigerators. Only a few teacher educators had housing facilities. Medical facilities to teacher educators were not provided on uniform basis. The medical facilities consisted of reimbursement of fees paid to the doctors. The majority of female respondents had small families consisting of two or three children, whereas male respondents had comparatively larger families consisting of five children on an average. The majority of respondents were satisfied with their jobs and sixtytwo percent of them did not want to change their profession. Dissatisfaction in the remaining was mainly due to low income, low social prestige attached to the profession, no further prospects, unjust and unfair administration, heavy workload, political pressure in admission and examination work.

567. BANERJEE, J. C., *Training of Primary Teachers in India, Ph.D. Edu., MSU, 1967.*

The objectives of the study were: (i) to assess the needs of primary teachers' training from the view point of qualitative and quantitative aspects; and (ii) to suggest remedies and to propound a few ideas that might uphold a training institution of tomorrow.

An interview schedule was prepared covering the different aspects of training of primary teachers viz., aims and objectives of training, organisation, curriculum and syllabus, practice teaching, community living, examination, teaching staff, wastage, supervision, community development, inservice training, and pay and allowances. Different educational authorities in sixteen states of India were interviewed with the help of this schedule.

The following observations were made on the basis of interview data: (i) There were weaknesses and shortcomings in the professional education of primary teachers and vigorous attempts were needed to put the programme on the right track. (ii) Basic education attached great value to the child and real development would take place only under conditions of freedom. (iii) In the new age, the school, the teacher, the training institutions had to play a great role in changing the old patterns of education. (iv) The number of student teachers, explosion of knowledge, and democratic living — all these placed upon the training institutions a responsibility of unprecedented magnitude. (v) A training college had to address itself to the task with a spirit of high adventure and faith. The following suggestions and remedies were put forward in the course of the

interview. Inservice training of primary teachers was thought to be important for enabling the teacher to grow intellectually in the course of his daily classroom work. The teacher should be kept up-to-date regarding new developments in the field of education. To remove the backlog of untrained teachers and to improve their academic and professional qualifications, summer courses should be introduced. The capacity of the training colleges should be increased. Supervision should be done by state institutes of education. The status of the teachers should be improved by raising the pay scales. For the teacher educators and administrators, courses should be conducted to refresh their knowledge. The rural teachers should undertake both classroom teaching and social service.

568. BANERJI, N. K., *A Study of Specific Ability and Attainment in the Teaching Profession in Junior High and Higher Secondary Schools, GCPI, Allahabad, 1956a.*

The aims of the study were: (i) to investigate into the interrelationship of the two aspects of training, viz., practice teaching and theoretical studies, and (ii) to ascertain to what extent these two aspects were related to general intelligence and teaching aptitude as measured by objective tests.

The student teachers in the Government Central Pedagogical Institute, Allahabad, during 1954-55 formed the sample. In the beginning of the session an intelligence test (The Otis Self-Administering Test of Mental Ability — Form A — Higher) and a teaching aptitude test (The George Washington University series by Moss and others) were administered. The marks secured in the final examination held at the end of the session in practice teaching and theoretical studies were obtained. The scores were tabulated under four heads: (i) theoretical studies; (ii) index of brightness; (iii) practice teaching and (iv) teaching aptitude. The product-moment coefficients of correlation were calculated. The correlation matrix was factorised by Thurstone's centroid method, using the highest correlation in each column as communality. To get a more meaningful insight into the nature of variables, a simple orthogonal rotation of axes was carried out.

The results of the study were: (i) there is a general factor in all the four aspects which is in conformity with the common expectation, as intelligence and clear thinking are considered to be the basic qualities necessary for making a good and efficient teacher; (ii) the main branches of the teacher training

programme, viz., theory and practice demand quite different qualities from those which are essential for brightness and aptitude, besides the general factor already indicated: (iii) successful class teaching needs qualities like quick thinking, ready wit, easy adaptability, humour, etc., which go to making a teacher bright and smart in the class; (iv) either practice teaching has very little in common with other tests or the method of assessing proficiency in practice is defective; and (v) practice teaching is the worst hit aspect in the examination system which is in vogue at present.

569. BANERJI, N. K., *An Analysis of the Various Factors associated with the Assessment of Ability in the Diploma of Licentiate in Teaching (L. T.) Examination of the Education Department, Uttar Pradesh. GCPI, Allahabad, 1956b.*

The need for the study was to investigate how far all the subjects of the L. T. examination conducted on behalf of the Education Department, Uttar Pradesh, taken together, made a compact homogeneous whole and to what extent graduates of the university possessed any general qualities and attainments which could help them in the specialised studies of the training colleges.

The examination marks secured by the examinees in the year 1955, formed the basis of the investigation. A random sample of 148 cases, which were complete in all respects, was selected. The product-moment coefficients of correlation between the ten subjects comprising the ten sections of the five compulsory papers were calculated from the examination marks. The correlation matrix of inter-subject correlation coefficients was factorised by Thurstone's centroid method using the highest correlation in each column as communality. To get a more meaningful insight into the nature of variables, a simple orthogonal rotation of axes was carried out.

The results of the analysis of the data were: (i) ten sections of the five compulsory papers did not form a compact homogeneous group or subject family; (ii) there was no single attainment or quality which outweighed the rest, but all were essential for a thorough theoretical preparation for the teaching profession; and (iii) the extracted factors were (a) knowledge of relevant facts and ability to marshal them in an orderly way, (b) understanding of concrete principles of child behaviour leading to a thoroughly practical approach to the actual pro-

blems, (c) a philosophical bent of mind to handle abstract expressions and grasp abstruse ideas and (d) different types of specialised ability and adaptability to master new branches of study.

570. BHARADWAJ, S. B. L., *Vocational Interest Patterns of Prospective Teachers of Higher Secondary Schools in Uttar Pradesh, Ph.D. Psy., Luc. U., 1959.*

The study aimed at finding out the vocational interests of students (both male and female) taking teacher training courses, with the help of occupational and vocational scales, combined into an interest record. Ten primary hypotheses were set up incorporating the expected patterns within and among groups involved.

The prospective teachers comprising 100 men and 200 women formed the sample. For comparison of vocational interests, a cross sample of pre-vocational group of medical college students (men and women), veterinary college students (men), and another cross sample of experienced teachers (men and women) of higher secondary grades rated as 'successful' by their principals, were studied. Seven general categories of vocational interests were incorporated in the measuring instrument (Interest Record) employed in this study, based on the factor analysis study of Guilford and his associates. The different categories were aesthetic, social, scientific, clerical, outdoor, mechanical and business. Item content of the categories of the Interest Record conformed to the factor descriptions in Guilford's study. Vocational interests were conceived as comprising two basic components — occupational interests and vocational interests. Median value of odd-even reliability coefficients for the occupational scale for men was .91 and that for women was .83. For vocational scales, the median coefficients for men and women were .89 and .81 respectively. The content validity of the instrument was established.

Findings revealed that (i) prospective men and women teachers perceived vocational interest categories as hierarchical, the social, scientific and aesthetic interests being at the upper level and mechanical, clerical, and business interests at the lower level with outdoor interest occupying the middle level; (ii) the sample of the prospective teachers differed characteristically in its vocational interests determined largely by vocational expectancies from those of the medical and veterinary samples; (iii) within the prospective teachers' sample, men and women with commerce, science, liberal arts and

social science academic backgrounds tended to differ from each other in characteristic ways and it appeared that high social interest and low clerical and business interests bind together the prospective teachers with diverse academic backgrounds; (iv) within the prospective teachers sample there were differentiations in interest hierarchies, in intensity, in scatter, in correlational patterns of interest dimensions, in overlap between occupational and vocational interests; (v) occupational and vocational components of vocational interests appeared generally the same, except for the men and women of the prospective teachers' sample; (vi) greater individual differences appeared on occupational scales and more so in the case of men than of women of the prospective teachers' sample; and (vii) the outdoor interest for men and aesthetic interest for women contributed to the principal attribute of masculinity and femininity of interests, respectively.

571. BHATNAGAR, O. P., *Role Expectations, Role Performance and Training Needs of Subject Matter Specialists Working in Jawaharlal Nehru Agricultural University and State Department of Agriculture, Madhya Pradesh, Ph.D. Agri. Extn., IARI, 1971.*

The present research was undertaken (i) to find out the organisational expectations of the role of the subject matter specialist (S.M.S.), (ii) to find out the consensus of 'Role Set' on role expectation, role performance and training needs of the S.M.S. on individual role items, (iii) to find out rank order of the subrole items under major role items as being assigned by the 'Role Set' on role expectation, role performance and training needs of the S.M.S., (iv) to find out the correlation between the independent and dependent variables of the different categories of 'Role Set' and (v) to find out the problems faced by the S.M.S. in performing their roles and to suggest solution to overcome them. It was hypothesised that (i) there are identical roles for both categories of S.M.S. and the consensus differs among the 'Role Set' on expectations, performance and training needs; and (ii) there will be interjudge agreement in ranking the 'Role Set'.

The study was conducted on a sample of ninety S.M.S. (University), sixtyfive S.M.S. (Government Department), sixty Supervisors (University) and forty Supervisors (Government Department) and 145 village level workers. Personal interview schedule, a role expectation performance instrument and career satisfaction scale prepared on Likert's techni-

que and Thurstone's equal appearing interval technique were used for collecting the data. The statistical techniques used were Kendall's coefficient of concordance, consensus index, t test, chi-square test and correlation coefficients.

The major findings were: (i) there were significant identical roles to be performed by both categories of S.M.S.; (ii) there were significant differences in the consensus among the 'Role Set' on expectation, performance and training needs of S.M.S.; (iii) there were significant agreements among the 'Role Set' in rank ordering of subitems into their major heads on direct teaching and training roles of expectation, performance and training needs, but for the subject matter authority, the agreement was on expectation frequency in performance, adequacy and training needs; (iv) there were some relationships between cadre, age, education, service in university departments, experiences, training, work loads, recognition obtained, option towards extension, facilities available and career satisfaction; (v) the ratings of performance by the supervisors with respect to frequency, time spent, adequacy and skill were positively and significantly related to cadre, inservice training, research experience, recruitment to S.M.S., experience as S.M.S., recognition obtained, etc.; (vi) there were significant relationships between and within independent and dependent variables; (vii) important problems faced by the S.M.S. in performing their role were lack of incentives and recognition to S.M.S., inadequate field and farmers problem oriented researches, lack of resources, motivation among farmers, transport facilities, interpersonal relationships, leadership and training facilities.

572. BHATTACHARYA, S. and SHAH, M. M., *Try-out and Standardisation of Teacher Efficiency Inventory, Centre of Advanced Study in Education, MSU, Baroda, 1966.*

The investigation has endeavoured to develop an instrument for the selection of primary and secondary school teachers. It was assumed that the inventory would serve as a satisfactory tool for prognosticating teachers' efficiency.

With a view to covering the important aspects, viz., teachers' attitude and teachers' resourcefulness, certain items were constructed in Gujarati for the inventory. One hundred items, evaluating the attitude of teachers on a two point scale and sixty items intended to test the resourcefulness of teachers in a classroom situation were constructed for the first and second sections of the inventory, respectively.

The time limit of the inventory was decided to be approximately half an hour. For each appropriate response the subject would score '1' in the first section and in the second section also he would score '1' for the most desirable response typical of a successful teacher. Item analysis was carried out and the results were compared with the experts' estimation. On the basis of item analysis and the opinions of the experts, fifty and thirty items were selected from the first and second sections respectively.

The final test was administered to 1,000 primary and secondary school teacher trainees in Gujarat State. The reliability coefficient established by split-half method was .75 for the first section and .78 for the second section, whereas the reliability coefficient of the whole inventory, established by the same method was .81. The face validity was determined by obtaining the opinions of three expert judges. In order to judge the external validity, the coefficient of correlation between the test scores and principals' ratings on a five-point scale was calculated. It was found to be .63. The predictive validity coefficient established by correlating internal practical examination marks and test scores was .72. The percentile ranks corresponding to the raw scores were also calculated.

573. *BOMBAY MUNICIPAL CORPORATION, A Pilot Study of the Level of Intelligence of Marathi and Gujarati Teachers in Municipal Schools and an Investigation into the possibility and usefulness of introducing tests of General Ability in the Selection and Recruitment of Primary Teachers, Primary Education Department, 1957.*

In view of the fact that intelligence and psychological tests are increasingly used in selection and promotion of persons in different occupations, it was decided to use these tests to test the level of intelligence of primary teachers who were due for promotion.

A standardised verbal test of intelligence was administered to 300 Gujarati and Marathi teachers including 194 teachers who were due for promotion as deputy headteachers. Correlations were worked out between the test results and confidential ratings of the teachers' work by the supervisory officers. The split-half method was used to calculate reliability of three language tests.

Findings revealed that (i) the maximum and the minimum intelligence quotients rated for the

group were 135 and 49 respectively; (ii) fifty out of ninetyfour Marathi teachers who had joined municipal service in 1937 and had about twenty years of teaching experience and were being considered for the post of deputy headteacher, (i.e. fiftythree per cent), were rated low and very low, whereas in the teaching profession one would expect a small percentage, not more than ten to fifteen in the low group and hardly any in the very low group where the very low group would be the one that might be rated as a group with an extremely slow grasp of things and one which would be considered by psychologists as bordering on feeble-mindedness; (iii) out of one hundred Gujarati teachers, five had an intelligence quotient below 70 and twenty-two had an intelligence quotient between 70 and 90; (iv) it was found that there was a fairly high positive correlation between the intelligence ratings as found in the test and the confidential ratings based on the observation of the supervising officers; (v) 'one to one' correlation was found between the two ratings in the case of teachers who were found to be 'very low' on the intelligence test and who were rated very low in their teaching work also by the inspecting officers; (vi) to verify the usefulness of the testing programme in the selection of recruits to the posts of teachers, intelligence tests were administered to 1,216 candidates for the posts of language teachers (i.e. 837 Marathi, 253 Gujarati and 126 Urdu) and it was found that correlations of intelligence test results with P.T.C. marks for Marathi, Gujarati and Urdu groups varied between .4 and .5 which showed to a fair degree, the validity of the tests; (vii) reliability of the Marathi language test was found to be .8 and for both Gujarati and Urdu, the reliability coefficient was .9; (viii) the mean score for the three language groups of candidates varied widely from 17.5 for Urdu to 20.0 for Gujarati and 23.0 for Marathi; and (ix) Marathi candidates were found to be superior in general ability to Gujarati and Urdu candidates.

574. *CHATTERJI, G. N., Some Studies in Discrimination between Teachers and Non-Teachers of Similar Job Status in terms of Identification with Significant Childhood Authority Figures, D. Litt. Edu., Cal. U., 1966.*

The major purpose of the investigation was to judge, objectively, the crucial differences between primary and secondary school teachers on one hand and nonteacher employees of similar job status on the other, in terms of their identification with significant childhood authority figures.

The sample of the study comprised 254 primary male teachers, 107 primary female teachers, ninety-seven male non-teachers and fifty female non-teachers—both equivalent to primary teachers in status; one hundred secondary male teachers, one hundred secondary female teachers, fifty male non-teachers and fifty female non-teachers both equivalent to secondary teachers, in status. The sample of non-teachers included lower division clerks who were equivalent to primary school teachers in status, and head-clerks, assistants, overseers, nurses, etc., who were comparable to secondary school teachers in status, qualifications and pay.

The variables included in TATSO were: measures of image discordance between subject and father (d1), subject and mother (d2), subject and the best liked teacher (d3), subject and the least liked teacher (d4), subject and the subject as teacher (d5), subject as teacher and the least liked teacher (d6), subject as teacher and the best liked teacher (d7), subject as teacher and the least competent teacher (d8), and measures of degree of adoration for mother (d9), for father (d10), and for teacher (d11). The major statistical techniques employed were the chi-square test, the F test, the t test and the Wilk's Likelihood Ratio. The major statistical operations employed were univariate and multivariate analysis of dispersion.

The following were some of the salient findings of the study: (i) The multi-variate analysis of the data for the primary level confirmed that the eleven variables were in a position to discriminate between the four groups of subjects when considered jointly and a joint consideration of the results of the chi-square test and F test pinpointed further that at the primary level only variables d1, d2, d3, d5, d7, d10 and d11 were capable of discriminating between the same four groups when considered individually. A similar analysis at the secondary level revealed that all the eleven variables taken together discriminated between the four groups, but variables d1, d2, d3, d5, d6, d9, d10 and d11 were individually effective in group discrimination. (ii) At the primary level, the variables d2, d3, d5, d7 and d11 could discriminate the male teachers from the male non-teachers, while d11 discriminated the female teachers from the female non-teachers. The variables d1, d3, d5, d11 discriminated the teachers from the non-teachers irrespective of sex, whereas variable d7 showed significant results under interaction between the profession and the sex. At the secondary level, d5, d7 and d11 significantly discriminated between the male teachers and the male non-teachers and variable d10 discriminated between the female teachers and the female non-teachers. The t test results showed that the vari-

ables d5 and d11 discriminated between the teachers and the non-teachers irrespective of sex, and variables d7 and d11 exhibited significant results under interaction between profession and sex. (iii) A crucially important fact which the present study revealed was that the teachers both at primary and secondary levels were found to possess different models of identification pattern from those possessed by the non-teachers. Thus the teachers at primary level were seen to be closer to their fathers, best liked teachers and their own images as teachers under the personality aspects, while in regard to their affective identifications, they showed significantly higher adoration for their teachers. In case of the teachers at the secondary level, however, the picture appeared to be slightly different in as much as their greater closeness to their fathers and their best liked teachers which failed to attain a level of significance under t tests, eventhough in respect of their greater closeness to their own images as teachers and higher adoration for teachers, the results at this level were parallel to those at the other level. It followed from the above considerations that the general feeling — persons come to the teaching profession as the last resort—is not borne out and that deeper motivations, conscious or otherwise, do come into play in their choice of and continuance in the teaching profession. Besides, the fact that teachers, both at the primary and secondary levels, were seen to be closer to their own images as the teachers appeared to point to their greater satisfaction in teaching as compared to that of the non-teachers in their projected images themselves as teachers. Such findings also provide support to the view held above, namely, that persons do not become teachers as the last resort. (iv) The teachers in the present study were found to be closer to their own images as teachers (d5) inspite of rather uncongenial existing conditions—poor salary scales, insecurity, etc., is an extremely important finding in as much as it includes the important aspects of their self satisfaction in teaching. (v) The males at both the subject group levels appeared to be closer to their fathers than the females. The teachers at the primary level seemed to be closer to their fathers than the non-teachers. But at the secondary level, the teachers and the non-teachers did not appear to show any clear-cut difference in respect of their closeness to their fathers. (vi) At both the levels, the females appeared to be closer to their mothers than males. The teachers too, seemed to be closer to their mothers than the non-teachers at both the levels. (vii) The males appeared to be closer to their best liked teachers than the females at both the levels. This also appeared to

hold good in the case of the teachers against the non-teachers. (viii) The overall discordance was found to be very much wider in the case of variables d1, d2 and d3 and the same appeared to be more pronounced in the case of the non-teachers than in the case of the teachers at both the subject group levels. Besides, the males seemed to be less critical of their least liked teachers than the females. (ix) More concordance was noticed in the case of the teachers than in the case of the non-teachers at both levels. When considered on the basis of sex, the males and females appeared to show equal concordance at the primary level; but at the secondary level the males appeared to exhibit greater concordance than the females. (x) The teachers appeared to be softer critics of their least liked teachers than the non-teachers. (xi) The teachers appeared to be closer to their best liked teachers than the non-teachers. Also, female subjects seemed to be closer to their best liked teachers at both the levels than the male subjects. (xii) The males appeared to exhibit a higher degree of adoration positively valenced affect than the females at both the levels, its intensity was more pronounced at the secondary than the primary. The two groups, male and female, at both the levels exhibited almost the same degree of adoration positively valenced affect for their mothers. (xiii) The females had higher degree of adoration for their fathers at both the levels. The two groups, at both the levels, exhibited almost the same degree of adoration positively valenced affect for their fathers. (xiv) The males had higher degree of positively valenced affect for their teachers than the females and the teachers had higher degree of positively valenced affect for their teachers than the non-teachers.

575. CHATURVEDI, N., *Personality as a Factor in Teacher-Student Deviation*, Ph.D. Psy., Agra U., 1970.

The aim of the study was to find out the personality variances among students and teachers as a result of social and environmental factors. On the assumption that causes of student-teacher deviation were associated with the personality factors of both students and teachers, following hypotheses were tested: (i) personality is an important factor in the deviant behaviour of the teacher and the taught; (ii) there are definite patterns of neuroticism, anxiety and paranoid traits which are responsible for the conflicts between the teacher and the taught;

(iii) there is a positive relationship between home environment and school discipline; (iv) difference in caste is also responsible for the difference in deviant behaviour; and (v) religion is an important factor in discipline of the students.

Initially 500 students from ten high schools and intermediate colleges (five boys' and five girls') of the age range fourteen to twenty years were selected, from which 250 deviant students (125 boys and 125 girls) were selected on the basis of teachers' ratings. The students were compared on eight dimensions and were equated on educational and social factors as well as race, family composition, school achievement, extra-curricular activities and teachers' ratings. The data were collected by questionnaires meant for the teachers and the students separately. The latter included questions on their interests, parents' employment, income, their likes and dislikes of a particular teacher, whether teachers were helpful in their aim of education and life or not. Each teacher was asked to evaluate his students with respect to personality adjustment, evidence of maladjusted behaviour, and students' interest in education. Each student and teacher had to complete an information sheet on "Pa" and "Pd" scales from the Minnesota Multiphasic Personality Inventory (MMPI). The variables were a lack of interest in things, a distinct denial of happiness or personal worth and the like. The teachers and students were also given a questionnaire to note their case history, including subjects' personal data, parents' occupational and educational background, number of brothers and sisters, joint or single family, type of schools attended, means of entertainment and type of friends.

The analysis of the data revealed that the teachers and the students showed definite trends of deviancy and the deviated students and teachers had definite traits of personality maladjustment and disorders evident from the profiles of "Pa" and "Pd". Such teachers and students came into conflict with one another more frequently; they were problems for the institutions, teachers and students. Detailed case history revealed deviancy due to many reasons. The family relationship of both teachers and students was unhealthy. The neighbourhood and school had an impact on the personality makeup and behaviour respectively. Aimlessness of their life was another factor in their deviant personality makeup. All these factors had created a type of personality in which mutual suspicion between the teacher and the taught, loss of confidence, a feeling of anxiety and tension were dominant, giving rise to conflict, misbehaviour and disobedience.

576. *DASGUPTA, S. K. An Analytical Survey of the Emotional Difficulties of Teachers in the Secondary Schools of Meerut District, Ph.D. Edu., Agra U., 1965.*

This study aimed at locating the emotional difficulties experienced by teachers in their professional school life. The phrase 'emotional difficulties' referred to the negative feelings such as worry, strain, annoyance, etc. The following hypotheses were tested in the study; (i) the performance of some of the duties causes feelings of frustration for the teachers; (ii) the feelings of frustration are expected to crop up when the teacher fails to accomplish a task which he believed he could do; (iii) feelings of frustration are caused when the task entrusted to the teacher is beyond his capacity; and (iv) feelings of frustration are caused when the organisational climate of the school is not democratic, and cooperation from society is absent.

The study was confined to teachers of both sexes in the rural as well as in the urban secondary schools in Meerut district. The sample consisted of 1000 male and female teachers. The stratified random sampling method was adopted. The information was gathered through one open-ended questionnaire, two closed questionnaires and an interview schedule.

It was found that children's annoying behaviour caused greatest concern to women teachers. Lack of experience also caused difficulties. Personal difficulties were intensified because of the nature of the work. Wrong placement of the fresh teachers in the schools created problems. Frustration among the teachers was felt because of lack of proper discipline in the school.

Lack of vision for good setting and proper motivation for the teachers towards teaching profession, financial difficulties of the teachers, insecurity of job in privately managed schools, etc., were also some of the causes of frustration among teachers. Pupils' moral degradation, lack of interest in work, poor examination marks and slow progress caused strain. Feeling of strain was most frequent in urban, inexperienced, young women teachers and the teachers of junior schools teaching larger classes and drawing low salaries.

577. *DWIVEDI, M. P., A Study of Personality Structure of Teachers and Students and their Relationship, Ph.D. Edu., Gor. U., 1970.*

The objectives of this investigation were: (i) to study the mental abilities of boys, girls, and teachers

and to see the differences; (ii) to study the attitude of teachers towards students and that of students towards teachers; (iii) to see the difference in the attitudes of boys and girls towards teachers; (iv) to study the value patterns of boys, girls and teachers in theoretical, economic, social, political aesthetic and religious areas and to find out the differences between the value patterns of the three groups, i.e. teachers, boys, and girls.

The sample of the study consisted of boys, girls and teachers (male and female) drawn from seven aided and two government institutions of Gorakhpur city. It consisted of 100 teachers and 1000 students (male and female). The devices used for data collection were: (i) a test of mental ability (verbal); (ii) typological structure personality tests, constructed on the basis of Sheldon's Typology; (iii) attitude scales for measuring attitude of students towards teachers and teachers towards students; (iv) a value test constructed on the basis of Spranger's Classification of Values; and (v) an interest inventory developed on the basis of activities related to cultural, physical, personal and curricular areas. All other tools, except the first one, were constructed by the investigator himself. The data were analysed with the help of descriptive statistics like mean and standard deviation. The normality of the distribution was tested with the help of 'method of moments'.

With regard to the typological structure personality tests, it was found that the mean scores of teachers were significantly higher than those of girls in each of the three typologies, viz., endomorphism, mesomorphism, and ectomorphism. The teachers, however, in comparison to boys, had a significantly higher mean only for endomorphism and ectomorphism. On interest inventory, no significant difference was observed between the mean scores of the three groups so far as physical interest was concerned. On cultural interest, the mean score of girls was found to be higher as compared to that of boys. No significant difference was found between the groups of teachers and girls and those of teachers and students. On personal interest, the mean score of girls was higher than that of boys or teachers. No significant difference was observed between the mean scores of teachers and boys. On Spranger's value test, the mean score of teachers was found to be higher as compared to that of students in theoretical value. In comparison to the mean score of girls, the mean of boys was found to be significantly higher. So far as the economic value was concerned, no significant difference was observed between the mean scores of the three groups. With regard to social value, the mean score of teachers was found

to be higher than that of the students. The mean score of girls was found to be higher than that of boys. No significant difference was observed between the mean score of teachers and that of girls. On political values, the mean score of teachers was found to be higher as compared to that of students. On aesthetic value, the mean score of girls was found to be higher than that of boys and also of teachers. On religious value, the mean score of girls as well as the mean score of teachers were found to be higher than that of boys. On attitude measures, it was found that the girls had a more appreciative attitude towards their teachers than the boys. It was also found that the teachers did not have favourable attitude towards boys. On intelligence test, the mean score of boys as well as the mean score of teachers were found to be higher than that of girls. No significant difference was found between the mean scores of boys and teachers. Similarly, no significant difference was found between the mean score of teachers and the mean score of boys and girls (combined).

578. GUPTA, S. P., *A Study of Admission Procedures in Elementary and Secondary Teacher Training Institutions*, NCERT, New Delhi, 1971.

The purpose was to study the existing admission procedures in the teacher training institutions and to suggest a suitable selection procedure so that the best candidates are admitted to the training colleges.

All the teacher training institutions in India, both at elementary and secondary levels, were requested to send their existing admission rules. Within the country, the questionnaires were sent to as many as 1,131 principals of elementary teacher training institutions and 375 colleges of education. Out of these, 475 (fortytwo percent) principals of elementary teacher training institutions and 203 (fiftyseven percent) of colleges of education responded. Interview schedules were prepared for carrying out the case studies of some of the institutions.

The findings are as follows: For admission to an elementary teacher training institution, (i) the minimum qualification is matriculation or S.S.L.C.; (ii) age limit is fifteen to thirty years for freshers, and upto fortyfive years for untrained teachers; and (iii) the admissions are given on the basis of credits gained on written tests, interview, academic record and teaching experience. For the admission to the secondary teacher training institutions, (a) the minimum qualification is B.A. with

forty to fortyfive percent marks; (b) age limit is eighteen to thirty years; and (c) over and above the consideration of credits on written tests, interview, academic record and teaching experience, some institutions like to administer intelligence tests for admission.

579. JOSEPH, K. J., *Teacher Education for Secondary Schools in Kerala*, Ph.D. Edu., Ker. U., 1967.

The attempt, in this investigation, was to study closely, the system of preparation of secondary school teachers in Kerala.

A detailed survey of the nineteen training institutions in the state was conducted to find out, analyse and study the conditions prevailing in them.

This was done through collection of detailed information about all aspects of the institutions, viz., plant, facilities and working conditions, which was followed up with visits to all these institutions. The second part of the study was to collect and analyse the views of the training college staff members on the views of the training college staff members about the qualification and experience in the training institutions. The third part of the study was the collection, analysis and study of the views of 600 students constituting more than twentyfive percent of the total student strength of training colleges in the state. Details were also collected about the trainees in all the colleges for a period of five years (1960-61 to 1965-66).

It was found that throughout the years (1960-61 to 1965-66) the number of applicants for the seats in the training colleges, for which selections were made by the training colleges themselves, consistently exceeded the number of places available. On an average, over seventy percent of the applicants were women. The average age of trainees in 1965-66 was found to be 24.1 years. A student who went up the educational ladder without failure could enter a training college at the age of twenty plus and the difference found between this and the average (24.1) was to be explained otherwise. In the present study, it was found that out of the 600 trainees, 82.5 percent qualified for admission to an examination earlier than the latest examination before admission. About 43.5 percent were found to have qualified a year earlier and over twenty percent qualified more than three years prior to admission. Over sixty percent of the trainees decided to enter the profession only after graduation. The analysis of the qualifications of the trainees showed that first class degree holders constituted only 2.6 per-

cent and second class holders, only eighteen percent of the total trainees and that eight out of every ten were third class degree holders. Only 2.1 percent of the trainees had post-graduate qualifications, but over sixty percent of them were third class degree holders. The trends that stood out were the gradual improvement in the qualifications of the trainees, improvement in the qualifications of women, increase in the number of women among science graduates, the gradual increase among better qualified women and the general increase in the number of science graduates. As far as teaching experience was concerned, it was found that the years went by, trainees with less and less experience in teaching were coming to the colleges. More than half the trainees were from the group with income 'less than Rs. 2000 a year'. Out of the different optional combinations available, over 1600 students opted for one of these groups—English and history, mathematics and physical science, English and mathematics, English and physical science, and English and natural science. The total number of the staff members in the training colleges (excluding instructors in craft and physical education) was 125 out of which thirtyfive were women. The analyses of the qualifications revealed that twentyfour percent of the staff members had taken all their degrees in third class only. It was found that only thirtyfive (twentyeight percent) of the staff members satisfied the minimum qualifications laid down by the university for appointment in the colleges. Practice teaching was done in a total of 188 schools for a minimum of fifteen periods in the optional subjects. In the number of periods of practice teaching as well as in the number of subjects for practice teaching and in different items of practical work there was no uniformity. The libraries in the training colleges were generally poor in their stock of books and journals, and unsatisfactory in their service. The method of teaching was most often lecture, followed by dictation of notes. Group work was comparatively unknown. Most training colleges were unsatisfactory from the point of view of accommodation, furniture and sanitary facilities. The average tuition fee charged by the government colleges was Rs. 150, while the amount charged by the private colleges was Rs. 420. Similarly, government colleges, on the average, charged Rs. 24.50 as special fee, whereas the private colleges charged Rs. 107. The private training colleges collected more than three times what the government colleges collected. The views of 600 training college students and 135 training college staff members yielded the following findings. About three-fourths of students as well as staff members favoured the pattern in which professional education succeeded general education leading

to graduation. Almost the same percentage favoured separate institutions for different levels of training. With regard to the size of the training institutions, over eightyfive percent of staff trainees preferred enrolment of less than hundred. Nine out of ten students as well as the staff members preferred coeducational institutions. Among the different subjects taught in training colleges, psychology was regarded by more than three-fourths of staff and students as the most useful subject. The paper, 'Current Problems in Indian Education' was considered by over eightytwo percent of the staff and sixtytwo percent of the students as the least useful subject. There was a strong feeling that content also should be included in the curriculum of training colleges. From the practicality point of view, only lectures were rated very high. The students also regarded group discussions, conferences and supervised study as very effective teaching methods. The staff and students, alike felt that the aim of practice teaching should be to give the trainee some experience of real classroom situation. With regard to the duration of practice teaching, the majority of staff members felt that atleast thirty days were needed, while the majority of students felt that twenty to thirty days were enough. In the supervision and evaluation of practice teaching, the training college staff was not prepared to share much responsibility with the school staff, but the students, on the contrary, had greater confidence in the capacity of the school staff to do this. On the question of practicability of methods taught in training colleges, only 15.2 percent of the staff and eleven percent of the students considered them quite practical. The majority of training college staff was of the view that fewer than fifty percent of the teacher trainees were properly motivated to enter the teaching profession and they called for better selection of candidates for training. On the question of relative emphasis to be given to theory and practice, over eighty percent of the staff and students favoured greater emphasis to practical aspects of the training.

580. JOSHI, D. C., *A Study of Innovations and Changes in Teachers' Colleges*, Ph.D. Edu., Udaipur, U., 1972.

The major purposes of the study were as follows: (i) to make a comparative study of innovative practices of teachers' colleges in India and abroad with reference to the objectives of teacher education, curriculum, methods of teaching, inservice education, and research; (ii) to identify factors responsible for resistance to adoption or successful implementation of in-

novations in teacher education; (iii) to suggest remedial measures to overcome the resisting factors.

The descriptive method was employed to find out the innovative practices and their adoption in the colleges of education. A preliminary survey of the colleges of education was made and, for intensive study of innovations, a sample survey was conducted in India and U.S.A. Questionnaires, interviews and observation schedules were employed to collect data from U.S.A. and India. The study of other countries was based on relevant literature.

The significant findings of the study are as follows: (i) In connection with the innovative practices of colleges of education, it has been noted that there is a trend to increase the duration of B.Ed. courses. Indian and South-East Asian countries have included courses which have a rural bias, while in U.S.A. new courses are emerging for special needs of the schools and children. Increasing interdisciplinary and inter-departmental approaches will lead to upgrading of syllabi in the teacher education programmes. The area of the method of teaching shows great variety and divergence in the colleges of education in different countries, with the recent development and advances of technology in the field of education and its impact on teaching techniques. Inservice education is comparatively new in teacher education programmes in India and South-East Asian countries. The concept of open university has been tried out in U.K. (ii) In connection with acceptance of and resistance to innovations, it has been noted that there is no category of acceptors as opposed to the category of rejectors. Acceptance of or resistance to an innovation depends on various factors, such as situation, facilities, leadership, personal qualities and the atmosphere, etc. (iii) The investigator has suggested innovations for the teacher education programme in India and has developed a conceptual curriculum development model.

581. KAUL, L., *Factorial Study of Certain Personality Variables of Popular Teachers in Secondary Schools*, Ph.D. Edu., Kur. U., 1972.

The objectives of the study were: (i) to sort out the differentiating personality traits (Cattell's factors) of 'popular' and 'not popular' teachers, (ii) to extract and interpret the common factors of the differentiating personality traits of popular teachers, (iii) to sort out the differentiating Sprangerian values of 'popular' and 'not popular' teachers, (iv) to extract and interpret the common factors of the differentiating Sprangerian values and (v) to study 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.

Twenty boys' high and higher secondary schools of the state of Haryana were randomly selected. All the students of classes VIII, IX and X of these schools were taken up in the study. 'Popular' and 'not popular' teachers were selected from each of the schools on the basis of the liking of the students. The samples of 'popular' teachers and 'not popular' teachers were 124 and 100, respectively. The differentiating personality traits of 'popular' teachers were assessed by using the sixteen personality factors (Cattell and Eber). The Sprangerian values of popular teachers were assessed by using the adapted Allport Vernon Lindzey Study of Values (modified by Chowdhary for Indian situations). An attitude scale for measuring attitude of school teachers towards teaching in schools was constructed and used. The public examination results of classes VIII, IX and X of the session 1968-69 were used to assess the academic attainment of the students whom the popular teachers taught. The significance of the differences in means on the personality inventory and the study of values were found out. Correlations between the differentiating personality variables were computed. The factorial study of differentiating Cattell's personality traits of popular teachers was carried out.

The results of the study were: (i) the popular teachers distinguished themselves as more outgoing, intelligent, emotionally more stable, sober, conscientious, venturesome, toughminded, shrewd, placid, controlled and relaxed; (ii) the popular teachers were significantly high on theoretical, social, political and religious values and were significantly low on economic and aesthetic values; (iii) the popular teachers had a favourable attitude towards teaching in schools; and (iv) the popular teachers were found to be effective in their work as teachers.

582. MALLAYA, V., *Teachers' Training in Madhya Pradesh*, Ph.D. Edu., Sag. U., 1968.

The purpose of this investigation was to study the modern trends in the teacher training programmes and the problems of teacher training in Madhya Pradesh with a view to suggesting ways and means to make it more effective.

Several official reports, documents and magazines provided the main sources of information. Visits to various teacher training institutes were made in order to collect the views of heads and other staff members.

The study revealed that: (i) the preprimary teacher training facilities were insufficient in Madhya Pradesh and Montessori training was very costly and needed reorganisation; (ii) the existing teacher training facilities at the primary and secondary levels which were considered sufficient, could be made more effective by strengthening science teachers' training at all the three levels, rationalising the selection of candidates for training and introducing practical aspects of teachers' training such as practice teaching, community life, preparation of teaching aids, games and sports, and cultural activities; (iii) it was observed that there was no proper dissemination of research findings in the field and traditional teaching methods were followed; (iv) evaluation techniques were mostly routine type and provided large variations in internal and external assessment; (v) since Madhya Pradesh is mainly an agricultural state, agriculture, co-operation and rural upliftment activities could be included in the teacher training programme and more outdoor activities be organised; (vi) better coordination in the programme of teacher training at various levels could make them more effective; (vii) the teacher training institutions in the state did not have adequate library facilities and the periodicals and magazines to which they subscribed were less in number; (viii) coordination at different levels of teacher training was lacking; and (iv) there was no provision for training the inspectors of schools and social education organisers.

583. *MANUEL, N. V., Workload of Teachers in Secondary Schools, The S.I.T.U. Council of Educational Research, Madras, 1965. (NCERT financed)*

This study was undertaken to make an objective-assessment of the workload of the teachers in Madras. It was planned to assess the workload from the viewpoints of administration, various aspects of the teachers' work, and use of teachers' free time.

The study was conducted on a sample of 300 teachers and thirty headmasters representing forty-nine schools of the city of Madras, other urban centres and rural centres of Madras state. The sample was representative of boys', girls' and mixed schools, private and public management, and rural and urban schools. Qualifications of the teachers were also sampled. Two questionnaires were checked. Twentyfive schools of Madras and Chingleput were visited to supplement the data collected otherwise.

The study revealed that the average secondary school teacher taught two different grades. The entire sample of teachers had a median pupil load of 162 per week. The average secondary teacher had to teach four sections. The median subject load of the entire sample was three. There was a tendency for excessive workload in one aspect to be compensated by a smaller load in another aspect. Teachers spent, on an average, about eighteen hours per week in classroom teaching according to the time table. A direct estimate of substitution work yielded a median value of 1.1 and a mean value of 1.6 hours per week. Teachers spent three hours per week in preparation of lessons. In addition, teachers had to spend time in setting up apparatus and collection of aids for teaching. Teachers corrected about 215 notebooks on an average. The time spent in correction had a median of 7.5 hours and a mean of 9.6 hours per week. In addition to three terminal examinations, a number of periodical tests were held in schools. The average number of such additional tests was six per year. The time spent in giving individual attention to pupils outside class hours had a median value of 3.0 hours per week. The time spent on extra-curricular activities and community activities had median values of 1.2 and 1.0 hours per week, respectively. The distribution of the composite workload of teachers had a median of 42.9 hours per week and a mean of 41 hours per week. Out of the time marked as leisure in the time table, the teachers spent a median time of about four hours per week in correction, two hours in preparation, one hour in meeting pupils, one hour in other school work and one hour in relaxation. At home they spent a median time of 8.7 hours a week on correction of school work, 2.3 hours on self-improvement and 2.5 hours on recreation and 1.6 hours on remunerative occupations. Majority of them reported weariness when they went home. All the high schools in the state worked for 200 days or more in the year. Teachers were expected to work for fifteen days during vacation besides other work. According to the responses of teachers, the median of estimated workload of teachers in hours per week in various aspects were: 16.5 for teaching, 5.1 for correction, 3.4 for preparation, 1.4 for extracurricular activities, 1.9 for attention to pupils and 0.6 for clerical and administrative work. The median estimate of teachers' workload and headmasters' legitimate workload in hours per week were: 16.3 for teaching, 5.3 for correction, 4.8 for preparation, 1.9 hours for extra-curricular activities, 3.4 for individual attention and 1.4 for clerical and administrative work.

584. *MARR, E. and SABHARWAL, N., Student Teachers: A Study of their Background and their Motivation for Teaching, Dept. of Teacher Education, NCERT, New Delhi, 1968.*

The study intended to investigate into the socio-economic background, motivation to teach, job aspirations and expectations regarding conditions in the jobs of the student teachers.

The sample consisted of B.Ed. students of the Central Institute of Education, Delhi in the years 1965-66 and 1966-67. The required data were collected through questionnaire and interview. The following statistical techniques were used: (i) frequency distributions; (ii) percentiles; and (iii) the chi-square test.

The important findings with regard to the socio-economic background were as follows. The fathers of 4.4 percent of the male student teachers and one female student teacher lived in rural areas. The income of the fathers of the female student teachers was generally higher than that of the fathers of the male student teachers. The fathers of fifty percent of the male student teachers and ninety percent of the female student teachers had education upto high school. The fathers of fourteen percent male student teachers and fifty percent female student teachers were graduates. The siblings of the female student teachers had more education than those of the male student teachers. Regarding qualifications, teaching experience and other aspects, it was found that sixty percent of the male and forty percent of the female student teachers had master's degree. Comparatively the male student teachers had more teaching experience, as well as experience in other fields. Nearly eightyseven percent females and sixtyfour percent male student teachers had chosen the teaching profession voluntarily. The male as well as female student teachers indicated earnings as their first consideration and prestige as the second consideration with regard to the job. The student teachers liked to emulate their family members as well as their teachers. With regard to the strong points possessed by them, abilities, general personality qualities and kindness, were mentioned; kindness was mentioned by most of the female and by a very few male student teachers. Among the admired qualities in their models, kindness was placed first by the male as well as by the female student teachers; truthfulness was placed second by the male, whereas cheerful nature by the female student teachers; and ability was placed

third by both.

585. *MARR, E., SINGH, L. C., ARORA, K. and GUPTA, S. P., An Intensive study of Three Colleges of Education in Punjab, NCERT, New Delhi, 1969.*

The purpose of this study was to make an intensive investigation into three colleges of education of the Panjab University, which were following the same programme; to study the actual functioning of their programmes; and as far as possible, to determine their strengths and weaknesses.

Data were collected through interviews, observations and study of records. The population of the study consisted of the staff members and the students of three colleges of education of the Panjab University.

Some of the salient findings of the study were; (i) both the staff and the students agreed that syllabus was predominantly theoretical and pleaded for change so as to emphasise practical work and more time allocation for teaching subjects; (ii) the teacher educators differed on specific skills and understandings as objectives of the programme; (iii) need was felt for more demonstration lessons by faculty members; each student was required to give two discussion lessons and to observe about thirty lessons given by other students; most respondents expressed that although it was useful to observe lessons, however, it could be reduced to save the activity from its becoming uninteresting; (iv) respondents, by and large, expressed their concern regarding the supervision of teaching practice as the supervisors could not devote adequate time to each student, and partly because it was often done by supervisors who did not know the subject; (v) evaluation of student teaching on the basis of two final lessons was considered unsound and it was advocated to assess the performance throughout the year; (vi) some respondents expressed that examiners of practice teaching, mostly senior persons, were out of touch with new developments in teaching methodology; (vii) fifty percent of marks in each paper were allocated for internal assessment, there was no attempt to coordinate the internal awards; (viii) usually, teacher educators followed lecture method; (ix) they expressed difficulties in adopting innovations due to lack of proper educational background and study habits of students, and want of time; and (x) student teachers mostly read books written mainly to meet examination requirements.

586. MEHTA, R. L., *An Investigation into the Attitudes of Student Teachers of Primary Basic Teacher Training Institutions towards Community Life and Craft*, Ph.D. Edu., Guj. U., 1971.

The present investigation sought to study the attitudes of Primary Basic teachers towards community life and craft, and to prepare a special programme to bring out a positive change in their attitudes towards community life and craft.

Out of the seventynine institutions of Gujarat, eight Primary Basic teacher training institutes were selected on the basis of stratified sampling. In all, twelve attitude scales were constructed on the Likert model to measure attitudes towards community life and craft—six of them related to community life and the other six to craft. In the initial stage, questionnaires with open-end questions were sent to 221 student teachers, craft teachers and educators. On the basis of this data, the new forced-choice-cum-open-ended questionnaires were prepared. The students of 1966-67 batch were administered all the scales, once in the beginning and again at the completion of the training. The students of 1967-68 were given a remedial programme in addition to the pre-administration and post-administration of the scale. The attitudes of 1966-67 and 1967-68 batches were compared.

The following were some of the salient findings: (i) The student teachers who opted for carpentry had more favourable attitudes towards the community life than those opting for spinning and weaving. (ii) The student teachers opting for spinning and weaving had more favourable attitude towards community life than those opting for agriculture. (iii) The women student teachers had more favourable attitudes towards community life than the male student teachers. (iv) The student teachers with no remedial programme had less favourable attitudes than the student teachers who were given the remedial programme. (v) The fresh student teachers showed more favourable attitudes towards community life and craft than the experienced student teachers. (vi) The remedial programme affected the attitudes in varying degrees. Some student teachers showed an increase in their scores, while some showed a decrease.

587. PAL, S.K. and GHOSH, B., *A Survey of the Load of Work on Higher Secondary School Teachers in U.P.*, Dept. of Edu., All. U., 1967. (MOE financed)

This study was undertaken to investigate the

workload of the teachers working in the higher secondary schools in Uttar Pradesh. The workload of an individual teacher was defined in terms of curricular and cocurricular work, office and other academic work which the teacher is expected to perform either in the school or at home.

Data for this investigation were collected from higher secondary school teachers and principals of six districts of Uttar Pradesh — Allahabad, Almora, Meerut, Jhansi, Varanasi and Gorakhpur. The questionnaire, interview and personal observation were used for data collection. In all, 560 higher secondary teachers, 125 principals and a few district inspectors and inspectresses constituted the sample. The problem was studied from the standpoint of sex of the teachers, location and management of the schools. The relationship between the load of work and the efficiency of the teacher was also dealt with.

The investigation revealed that (i) the teachers entered the profession with favourable attitude towards teaching, but later on the circumstances, the service conditions and other factors contributed to their frustration and dissatisfaction; (ii) the teachers suffered on account of low socio-economic status; (iii) the unwholesome service conditions had great impact on the physical and mental life of the teachers; (iv) a vast difference existed between the service conditions of government and private school teachers; (v) teacher training did not help in minimising the workload of teachers; (vi) workload was more for the private school teachers than for the government school teachers due to the teacher-pupil ratio and job insecurity; (vii) methods of teaching, number of the school subjects taught, and the heterogeneity of the classes contributed to the load of work; (viii) supervision of extra-curricular activities after school hours and during holidays encroached upon the free time of the teachers; and (ix) all the teachers were expected to attend office work of one kind or the other.

588. PANDEY, K.P., *Construction and Standardisation of a Teaching Aptitude Test (to be used for Selection purposes in the Institutions of Teacher Education for Primary Level)*, Ph.D. Edu., Jiw. U., 1968.

The study aimed at developing a standardised tool for use as a teaching aptitude test in the selection of trainees in the institutions of teacher education of Uttar Pradesh and also other states having Hindi as the medium of instruction.

The test included the following eight subtests. professional knowledge, vocabulary, inferential reasoning, number series, numerical reasoning, logical selection, general information and reading comprehension. The first draft of the test (reliability .83 by modified K-R formula 20) developed on the basis of the results of the job analysis of teaching was administered to the applicants seeking admission in the normal schools of Uttar Pradesh. The second draft (reliability .75 by modified K-R formula 20) was evolved from the item analysis made after the first tryout. The same process was repeated for the second and the final drafts. The final draft was administered to a representative sample of 1,190 (650 males and 540 females) trainees of the normal schools of Uttar Pradesh, with an age range of seventeen to thirty-four and academic qualifications from junior high school to intermediate standard. The draft took seventyfive minutes for completion.

The skewness of the distribution of the total group was .408 and kurtosis was .227 which indicated that the distribution of scores was slightly negatively skewed and leptokurtic. Sexwise and qualificationwise distributions of scores were also carried out. The percentile and T score norms were calculated for the total sample, boys' group, girls' group and different academic qualification groups. The test was validated against supervisors' ratings (.49) and final examination marks (.62). Using the Thurstone's centroid method the data were analysed which yielded the four factors, viz., General Educational Factor, Reasoning Factor, Numerical Skill Factor and Reading Comprehension Factor.

589. PANDYA, B.G., *Professional Test for Teachers*, Ph.D. Edu., Bom. U., 1972.

The test was designed to measure the various traits needed to be present in an individual to become a good professional in teaching.

After studying the different traits necessary for becoming an effective teacher on the basis of the opinions of forty experts and experienced educationists and educational administrators, test items measuring these different traits were constructed. They were divided into seven subtests in all. The whole battery was circulated among five experienced principals of secondary schools of Greater Bombay. On the basis of their opinions, the items were revised. Pre-tryout was done by administering the test to about 350 trainees of B.Ed. college at Ulhasnagar and the items were modified. To overcome the language dif-

ficulty, the equivalent forms in English, Marathi, Gujarati and Hindi were prepared and administered to about 400 trainees, selected from different training colleges of the city of Bombay. Item analysis was carried out and the items were again revised. The final test was administered to 1,500 B.Ed. trainees at various training colleges of Bombay, Ulhasnagar, Poona and Nasik. Mean, median, mode, standard deviation, percentiles, stanine scores, z-scores and T-scores were computed. The test-retest and split-half reliability coefficients were found out. Validity of the test was determined by concurrent validity method.

590. PATEL, K. N., *Critical Evaluation of the Organisation of Audio-Visual Education Training Programme in the Secondary School Teachers' Training Colleges in India*, Ph.D. Edu., MSU, 1971.

The main purpose of the study was to critically investigate into the audio-visual education programme and the kind of training opportunities offered to the teacher trainees in secondary teacher training institutions. The study was done with reference to the objectives of the programme such as curriculum, staff, activities, selection of candidates, evaluation procedures, availability of audio-visual aids and equipments, research and publications in the field.

A sample of 115 colleges, having the audio-visual education programme was selected. A questionnaire was prepared and pretested and sent to the persons concerned in the colleges and the data collected were analysed in terms of percentages.

The findings regarding the objectives of the audio-visual education training programmes were found aiming at acquainting the teachers with various modern tools of teaching techniques and imparting general training in audio-visual education. Curriculum was found to be inadequate in most of the training colleges. Most of the colleges did not revise the course outline. Only five colleges were found to revise it on the basis of changing needs. It was found that there was an acute shortage of qualified and experienced staff. The topics taught in the theory of audio-visual education were of elementary in nature. Limited practical experience was given in the field. Facilities like audio-visual laboratory, workshop and classroom were rarely available in colleges. No specific method was followed for the selection of candidates for audio-visual training programmes. The science graduates with some allied experience in the field were preferred in some cases. Inadequate weightage was given to audio-visual education in the annual

examination. The colleges did not spend an adequate sum of money on equipment, research or books for the audio-visual laboratory. The appraisal of the training programmes and the follow-up of the teachers trained in this field were lacking in most of the colleges. Compared to private or government colleges, the university colleges excelled on the whole.

591. REDDIAR, A. N., *A Follow-up Service Study of Trained Graduate Teachers, Thiagarajan College of Preceptors, Madurai, 1964.*

In this project, an attempt was made to study and evaluate the effectiveness of the professional competence of the teachers trained by the college, in actual classroom teaching. The specific objectives were as follows: (i) to analyse the content of the training given to the student teachers in the college; (ii) to study the extent to which the trainees follow the techniques and methods learnt during the training in their classroom work when they serve in schools as teachers; (iii) to study the relation between their efficiency as teachers and their performance during the period of training; and (iv) to find out in what respects trained teachers are superior to untrained teachers.

One hundred and twentyone graduate teachers trained during the years 1956-61 in Thiagarajan College, Madurai, with three years service in schools after training, and twentytwo untrained teachers were selected as subjects. The study was confined to three subjects, viz., English, mathematics, and general science. Two questionnaires were used for data collection—one for the subjects for eliciting information regarding equipment available in the school for teaching, methods and techniques followed in classroom work, and the other for the heads of the schools in which the subjects were working. This questionnaire called for detailed information regarding facilities, equipment, etc., available in their schools, and also regarding the schools' academic and administrative aspects. More data were collected through interviews with the subjects and the heads of the concerned schools. Lessons taught by the selected teachers under classroom conditions were observed and evaluated on the basis of an objective rating scale which was being used in the college to evaluate the teacher trainees during practice teaching. These gradings were compared with the gradings secured by them in the B.T. practical examination of the university. The teachers' lesson plans, pupils' exercise books and practical work records were also scrutinised before finally evaluating the teachers' work in the schools.

The results showed that the gradings of the performances of sixtythree percent teachers during the study tallied with the classes secured by them in the B.T. practical examination. Of the twentytwo untrained teachers whose lessons were observed and evaluated on the same rating scale as applied to trained teachers, the performance of only one teacher was found to be good. The performances of the remaining twentyone teachers had been assessed as below average.

592. SAIKIA, S., *Teacher Education: A Study of the Problems with special reference to Assam (at Secondary Level), D.Phil. Edu., Gau. U., 1971.*

The study attempted at finding out the causes for the ineffectiveness of the teacher training programmes (at the secondary level) in Assam, and to suggest some remedial measures.

Fifty untrained and one hundred trained teachers were investigated alongwith 134 candidates studying in the B.T. Department of the Gauhati University with regard to (i) the participation in their training programmes; (ii) the effectiveness of supervision programmes; and (iii) the relationship between the theoretical and the practical part of training to find out how teaching practices could be improved. A study of the syllabi of the teacher training colleges in Assam affiliated to the Gauhati University was also made.

The study revealed that none of the trained teachers prepared lesson plans of their work. Though as a group, the trained teachers were found to be somewhat methodical in their teaching, their teaching methods differed from what was taught during their training. The observed discrepancy was attributed to (i) the training course itself and (ii) the conditions under which a trained teacher had to work in a school. Compared to the educational system of England, the relationship between the training institutes and practice teaching schools in India seemed strained. In India, the syllabus of study was not relevant to the actual needs. The practical side of training was not given due care. The physical and material conditions in the teacher training institutes in India were not conducive to curricular work of the student teachers. The wastage in teacher training colleges in India varied between ten and forty percent, whereas the same in England was practically nil because of wise selection procedure and proper evaluation in the course of training. It was also found that the neglect of practice in teaching was due to nonavailability of schools for practice teaching and meagre super-

vision and guidance. Making student teachers study a variety of subjects within one academic year affected their training rather harmfully. The high percentage of untrained teachers was partly due to the rapid growth of secondary schools in the state. The author further suggested some changes for qualitative improvement of the training programme. Some of them are: (i) revision of the syllabus; (ii) admission by selection; (iii) change in the method of teaching and evaluation; (iv) reorganisation of practice teaching; (v) involvement of university departments of education in teacher training of the state; (vi) introduction of regional language as the medium of instruction in training colleges; and (vii) creation of academic boards and staff-student consultative committees.

593. *SHAH, M. M., An Aptitude Test for Secondary School Teachers—Construction and Standardisation, Ph.D. Edu., MSU, 1962.*

The objective of the study was to develop a tool to measure teaching aptitude.

Construction of the test started with the job analysis. Besides personal experience, the sources tapped were (i) training college teachers, (ii) education department personnel, (iii) secondary school principals, (iv) veteran teachers and (v) successful and unsuccessful teachers. The battery of tests was formed with five subtests, viz., mental ability, attitude towards children, adaptability, professional information and interest in the profession. A preliminary form was prepared with 183 items classified into five subtests. Most of the items were of multiple choice type. The tryout of the test was done with the group of 153 graduates who sought admission to the teachers' training course in the M.S. University of Baroda. Out of one hundred candidates admitted, two groups described as high and low on the basis of their internal marks and the university marks were formed. The pilot test was framed with 143 items. A pilot testing was done on a sample of 371 student teachers from five training institutions from Poona, Bombay and Baroda. On the basis of item analysis 120 items out of 143 were retained for the final form. The final form was administered to student teachers from six training colleges from Baroda, Ahmedabad, Porbandar, Bombay and Poona. Five hundred and thirty answersheets were collected for further study. The scores were tested for normal distribution by three techniques, viz., diversion measures, chi-square test and superimposition of an ideal curve. Reliability of the tests were studied

by various methods. Validity was tested against the Part I and Part II examination marks of the subjects. A further study of the subtests to form a battery of tests was made by calculating the multiple regression equations for each subtest. Factor analysis was carried out by using Thurstone's technique. Norms were calculated in the form of standard scores T scores, and percentiles. Grade classification of 530 teachers was also attempted.

The study revealed that (i) the reliability coefficients of the tests varied from .802 to .878; (ii) the validity coefficients were around .502, (iii) the multiple 'R' of the final test battery was 0.533; and (iv) the predictive efficiency of the tests was sixteen percent.

594. *SHANKAR, L., The Impact of Extension Services Departments on School Improvement in Haryana, Dept. of Edu., Kur. U., 1969.*

The aims of the study were (i) to study and assess the effects of extension service work ever since the major extension service centre at Kurukshetra came into being, (ii) to evaluate the work of the extension department with regard to the effects of the accomplishments and failure of any plan or programme and (iii) to suggest changes in policies and procedures, if necessary.

Two questionnaires were developed and sent to participating heads and teachers. Interviews with heads were also held. The data were collected from the schools of Karnal, Rohtak and Gurgaon districts.

The study revealed that (i) seventy percent of heads and teachers thought that the extension services proved useful in making the knowledge up-to-date and increasing the efficiency of teachers and in changing their attitudes and outlook towards teaching; (ii) extension service work enabled the teachers to start experimental projects and also to coordinate the work of different schools; (iii) a fair majority felt that the various activities undertaken were organised by keeping the needs of schools in view and thereby helping heads and teachers in making classroom teaching effective; (iv) as a result of extension programmes, heads and teachers started taking more interest in school work by organising subject clubs, projects and the like; (v) teachers generally did not use teaching aids available in the extension departments; (vi) teachers read publications of the extension departments with interest and found them useful; (vii) teachers were not interested in seminars; (viii) the extension departments failed in follow-up

work as they were unable to chalk out any concrete programme to assess their activities; (ix) heads, teachers and coordinators felt that the expenditure of the extension service work did not yield sufficient return in terms of improvements in schools; (x) with regard to making the departments more useful and effective, many felt that heads and teachers should be made aware of the facilities available and programmes drawn, keeping in view the needs of local schools which could be known from heads and teachers; and (xi) there was a greater need for more follow-up programmes to assess the implementation of new ideas, methods and techniques.

595. SHARADA DEVI, G., *Education of Graduate Teachers in the Traditional and Basic methods—An analysis of the Problem and Suggestions for an Integrated Pattern to suit Our Socialistic Pattern of Society, Ph.D. Edu., MSU, 1964.*

The investigator attempted at working out in detail an integrated pattern of graduate teacher education combining the traditional and Basic methods.

A questionnaire was prepared on the basis of the criticisms and suggestions offered by thirteen educationists including principals, professors and lecturers of the training colleges following traditional and Basic education ideologies, educationists in research institutes, coordinators of extension services departments, and heads of education departments concerned with the training colleges. The questionnaire was sent to the principals of 120 traditional and thirtynine Basic training colleges (covering almost all the institutions in the country). On the bases of the responses received on the first questionnaire, a second one was prepared with a view to gathering the views of the educationists and those working in the field regarding the prevailing conditions and inviting their suggestions for a new pattern of teacher education programme leading to a graduate degree. The second questionnaire was sent to educationists in India and abroad.

Based on the data collected through the questionnaire, a comparative study of the two types of training colleges was made with regard to (i) the position of training colleges in the pre-independence and post-independence era, (ii) the existing general pattern of the training colleges, (iii) the staff, (iv) selection of trainees, (v) the facilities available, (vi) the aims, (vii) the activities, (viii) the curriculum, (ix) the demonstration lessons, (x) observation of lessons by trainees, (xi) the teaching experience of

trainees, (xii) craft work, (xiii) participation in community life, (xiv) the tutorials, (xv) the practical and field work, (xvi) the examination, (xvii) the research work, (xviii) the inservice training programme, (xix) evaluation of teacher education programme and (xx) relationship with other institutions. The investigator has given suggestions for an integrated pattern of teacher education. Some of them are: (i) the new training college should be an integrated one built on the strength of both the traditional and the Basic patterns; (ii) it would be preferable to have the duration of the course for two years; (iii) it might be better if the training colleges are kept under a university, both academically and administratively; (iv) every training college should be a residential institution; (v) there should be a mixed staff; (vi) the needs of the teaching profession should be kept in view while selecting candidates; (vii) it would be wise to appoint a selection committee to select candidates; (viii) the entire structure of the training programme should include theory, practical work including school teaching experience, art and craft work, community life, and experimental and field work; (ix) a well-equipped research section should be made available in every training college which should undertake suitable research work; (x) it would be better to give weightage for both internal and external assessments; (xi) an extension service department should be attached to every training college for the promotion of inservice education of teachers; and (xii) the programmes of training colleges should be evaluated on a scientific basis, once in five years.

596. SHARMA, A. P., *An Experimental Study of a B.Ed. Theory course in Educational Psychology with a view to Analyse the potential of carry over to the classroom situations in Terms of Student-Teachers' Behaviour, Ph.D. Edu., Mee. U., 1971.*

The study was designed to investigate the essential contents of educational psychology which should be presented in a teacher education course at the B.Ed. level. It also aimed at analysing classroom behaviour of student-teachers in terms of its relevance to the psychological understanding of the process of teaching and learning and assessing the patterns of classroom interaction available in the repertoire of the student-teachers exposed to certain methodologies. The hypothesis tested was that a specific method in imparting a course contributes more towards building of a transfer potential to the class-

room situation as measurable by student-teacher behaviour and that patterns of verbal behaviour, quantifiable through Flanders Interaction Analysis Category System, varies as a result of the experimental treatment.

The sample selected for the study consisted of the students of the Department of Education, Meerut University. For the main study, out of the sixty students selected, only fiftyfour remained who were divided into two groups, on a random basis, in accordance with the first and second degree levels and in terms of subjects. Most of them were in the age group of twenty to thirty years and had teaching experience ranging from zero to five years, except for fifteen who had more than five years experience. An achievement test in educational psychology was standardised to measure the learning outcomes. It contained eighty items prepared in the light of cognitive and noncognitive outcomes. Reliability coefficient of the test found by the rational equivalence method was .90. Experts considered the validity of the test as fairly satisfactory. Both the groups were subjected to an orientation programme in which small group discussions were held. The student teachers were given questions to discuss and it was ensured that each subject actively participated. Of the two groups, one was randomly selected to be experimental group. The control group was taught by the lecture method, while the other group was exposed to team teaching and supervised study. The same teacher taught both the groups, except during team teaching when he was assisted by colleagues. The objective type achievement test in educational psychology was administered at the end of eight weeks of the experiment.

It was found that the percentage mean gain of the team teaching group was 34.45, while for the control group it was 31.66. The t test indicated that the difference was not significant. An informal enquiry revealed that the experimental group had a more favourable attitude towards learning and a fair amount of motivation and interest. As regards the supervised study versus the lecture method, the percentage gain of the former was 46.55 and of the latter 40.90. The t test revealed a significant difference at .01 level of confidence. It was found that during team teaching and supervised study, the problems of motivation, active participation and interest were adequately solved. Analysis of the communication pattern revealed that shifts from one category to another were less widespread in the control group, that is, communication of student teachers in the experimental group was faster. The control group was more autocratic, while the experimental

group was more democratic in the classes. Student teachers of the experimental group resorted to more powerful means of reinforcement and reward in the context of teacher controlled responsive student talk, than the control group. Experimental group exposed students to more freedom and initiative while teaching classes and tried far more active participation of students in the teaching-learning process. Teachers of the experimental group had less problems of the classroom management, discipline and control. Responsive student talk accelerated 'information giving' or lecture more in the case of the experimental group. The experimental group showed greater positive reactions to responsive student talk.

597. SHARMA, R. C., *To investigate the Professional Needs of Teacher Educators of Undergraduate training Institutions of Madhya Pradesh and Maharashtra, Ph.D. Edu., Vik. U., 1970.*

Major objectives of the study were: (i) to establish the objectives of undergraduate teacher education, (ii) to investigate into the present educational, professional and economic status of teacher educators in service, (iii) to study the procedure of recruitment and service conditions of teacher educators, (iv) to investigate into the professional needs of inservice teacher educators of Madhya Pradesh and Maharashtra and (v) to suggest measures for meeting the professional needs of inservice teacher educators in particular, and preservice teacher educators in general, in the light of the findings.

The sample of the study included 650 teacher educators, 130 principals and 100 experts from 130 primary training institutions of Madhya Pradesh and Maharashtra. The research tools used were (i) a rating scale for establishing the objectives of undergraduate teacher training, (ii) a questionnaire for teacher educators, (iii) a questionnaire for the principals, (iv) a rating scale for identifying the professional needs of teacher educators and (v) an interview schedule.

The findings of the study revealed that objectives of undergraduate teacher education included development of personal qualities like open mindedness, self-discipline, tolerance, intellectual boldness, positive attitude towards children and profession, and understanding of the problems and skills of handling them. Majority of the people who were interviewed expressed their dissatisfaction about the impact of teacher training on improving the teaching competence of teachers. As much as 76.38 percent

of the teacher educators in Madhya Pradesh had postgraduate qualifications, while in Maharashtra the extent was only 42.85 percent; 66.67 percent of the teacher educators in Madhya Pradesh had M.Ed. degree, but only 15.48 percent had it in Maharashtra; and 29.17 percent of teacher educators in Madhya Pradesh and 16.67 percent in Maharashtra, were engaged in research work. There was no significant difference in the salaries of the teacher educators in Madhya Pradesh and Maharashtra. In government institutions, generally, the teachers from secondary schools were transferred to training institutions, whereas in private training institutions the appointments were made on the basis of qualifications, experience and interview. Majority of the teacher educators in Maharashtra and Madhya Pradesh enjoyed benefits of provident fund. Pension, free medical aid, facility for free education of children were enjoyed by a majority in Madhya Pradesh, but by only a small percentage in Maharashtra. Workload in Madhya Pradesh was 18.46 hours, whereas it was 21.13 hours in Maharashtra. Professional needs of the teacher educators included (i) a well-equipped library with latest literature in the field of education and research; (ii) facilities for attending meetings of professional organisations; (iii) developing skills in supervision of teaching and in the preparation of teaching aids; and (iv) provision for academic tours and study leave. As much as 64.83 percent of the teacher educators in Maharashtra and 43.05 percent in Madhya Pradesh had not attended even one in-service course during a period of five years upto the date of data collection.

598. SHARMA, S. N., *A Teaching Aptitude Test for Elementary School Teachers, Ph.D. Edu., Pat. U., 1969.*

The main objective of the study was to develop a test in Hindi for measuring teaching aptitude of elementary school teachers.

The investigator identified twentyone factors contributing to success, in teaching on the basis of job analysis. This number was finally reduced to six on the basis of the ratings of 275 judges, consisting of training college principals and teachers, headmasters, inspectors and experienced teachers of elementary schools. The judges ranked those twentyone factors in order of their importance in contributing to the success in teaching in elementary schools. Working knowledge of subject matter, which was one of the six factors, was excluded from the test as it needed construction of an achievement test

battery. Finally, five subtests were included in the battery, viz., mental ability, attitude towards children, adaptability, professional information and interest in the profession. On the basis of unanimous judgment of ten judges, an initial pool of 213 items was reduced to 145 items. The test consisting of 145 items was administered to 370 trainees, randomly selected from two training schools. After item analysis, 120 items were retained for the final form of the test. The test was standardised on a sample of 380 male and 120 female trainees selected at random from different training schools. Chi-square test was applied to test the normality of the distribution.

The reliability coefficients of the test, calculated by split-half method, test-retest method and K-R formula 20, were .98, .97 and .89, respectively. Predictive validity coefficients with internal assessment and with ratings by a board of instructors were .36 and .42, respectively. The factorial validity of the test was established by applying Thurstone's centroid method. Content validity of the test was also established. Standard score norms, T-score norms, percentile norms and letter grade norms have also been worked out.

599. SHERRY, G. P., *A Battery of Psychological Tests for Prediction of Success in Teaching, Ph.D. Edu., Agra U., 1964.*

This study aimed at testing the following hypotheses: (i) Teaching effectiveness is associated with physical, intellectual, social and emotional equipment of the teacher. The tools measuring these characteristics may show significant predictive validity for teacher effectiveness. (ii) Success in teaching is determined by a teacher's interest in the subject, in children and in teaching. (iii) Success in teaching is related to teacher's attitude towards teaching. (iv) A combination of measures of intelligence, personality, interest and attitude may give a better prediction of teaching efficiency than any single test. (v) Supervisors' ratings may be a better criterion of teaching efficiency than the marks in the final B.T. examination in theory and practice.

The study was confined to pupil teachers of department of education and the training colleges affiliated to the Agra University in Agra region. The sample consisted of the pupil teachers of seven colleges. Significance of differences between the means of various colleges were calculated. Reliability of the tests were calculated by the test-retest method and split-half method. Validity coefficients of the tests were found for each college as well as for the whole

group by correlating the scores with the criteria measures of supervisors' ratings, final practice teaching examination marks and final theory examination marks. Coefficients of multiple correlation were calculated for the total group, as well as for each college separately. The battery of prediction of teaching efficiency included self prepared tools— (a) intelligence test, (b) interest inventory, (c) personality inventory, and (d) attitude scale. The reliability coefficients in case of intelligence test were .89 and .93 as calculated by test-retest and split-half methods respectively. The validity coefficients ranged between .47 and .71. Reliability coefficient of interest inventory by test-retest method was .649, whereas the validity coefficients ranged between .25 and .49. The reliability coefficients of personality inventory by test-retest and split-half methods were .766 and .800 respectively, while validity coefficients ranged between .280 and .570. The reliability of attitude scale was found to be .649, whereas the validity coefficients varied between .198 and .554.

The study revealed that: (i) supervisors' ratings could be predicted to a satisfactory extent by all the four tests; (ii) computations of multiple R coefficient showed that the four tests could be combined to form a battery to predict supervisors' ratings for different colleges in different order; (iii) classroom teaching duties were considered more essential than nonteaching duties by a large number of experts in the field of education; (iv) as regards success in class, the preparation and execution of the lesson, recognition of individual differences, relating teaching to pupils' needs and helping pupils to solve the educational and personal problems were given considerable weightage; (v) intelligence was found to be most important for success in teaching; (vi) the next important factor was the emotional quality of the teacher and attitude occupied a more important place than interest; and (vii) among professional skills, the skill of maintaining an atmosphere favourable for learning, executing the lesson in an appropriate manner, maintaining proper pupil-teacher relationship, recognising individual differences, using proper means of communication and instruction and selecting proper teaching aids were considered important.

600. *SIE (Gujarat), To Study the Problems of the Trainees of the Primary Teachers' Institutions of Gujarat, and to know their views on present Syllabus, Ahmedabad, 1965.*

The main objective of the study was to know

the then position of primary education in Gujarat with special reference to the primary teacher trainees.

Three questionnaires were sent to a representative sample of 1,400 teacher trainees of the primary teacher training institutions of Gujarat. Data were analysed.

The main findings of the study were: (i) the syllabus needed some modification; (ii) the trainees had some financial problems; (iii) the attitude of the trainees to the Basic education was positive; (iv) the trainees liked the community life activities very much; and (v) the quota of the craft was too much for the trainees.

601. *SIE (Gujarat), Case Studies of Primary Teacher Training Institutions of Gujarat, Ahmedabad, 1966.*

The objective of the study was to get a representative picture of the position of primary teacher training institutions of Gujarat.

A representative sample including ten percent of the total number of primary teachers' training institutions was selected for the study. A case study proforma was prepared and used to collect the data.

The study revealed that (i) more physical facilities were needed for the trainees, as these institutions were residential units; (ii) all the institutions had adequate number of Basic trained staff members; (iii) no institution had a science laboratory; (iv) there was no reading facility in these institutions; (v) there was a great need for adequate reading room for students and staff members; (vi) fifty percent of the staff members needed refresher courses; and (vii) there was no proper planning done in these institutions.

602. *SIE (Maharashtra), Status Study of Pre-Primary Training Colleges in Maharashtra, Poona, 1965.*

The study was undertaken with the following objectives: (i) to know the patterns of organisation of preprimary training institutions in the state which includes management, selection of trainees and admission procedures; (ii) to investigate into the academic aspects of the institutes such as curricula, time allotment, material needs, facilities available and accommodation for the classes as well as hostels and suitability of the location; and (iii) to study the overall picture of the financial status of the institutions.

A questionnaire with five sections, viz., identification data, students' admission, academic program-

mes, building and hostels, and finance was administered to the principals of all the thirteen institutions. Out of thirteen only eleven responded. A conference of the principals was also held to elicit their views regarding the working of the institutions.

The study revealed that (i) one out of eleven institutions was run by the government, while other ten by private management but recognised by the government; (ii) two of the institutions were started in 1964, while the rest were started during the last decade; (iii) all institutions except one at Dhulia actually admitted only women teachers during 1963-64 and even then untrained women teachers were greater in number; (iv) though the demand for admission was greater, the intake capacity of the institutions had remained static; (v) eight colleges admitted students both for one-year and two-year courses, two colleges admitted students only for two-year course; (vi) few students received financial help from the sponsoring institutes; (vii) almost all the colleges levied tuition fees ranging between Rs. 72 and Rs. 180 per annum; (viii) all institutes followed common curriculum with daily teaching practice; (ix) all colleges had libraries, and there were special teachers for drawing and handicrafts in two colleges only; (x) all colleges but one, were located in urban areas, three of them had their own buildings and the remaining were run in rent-free buildings; (xi) with the exception of one hostel facilities were inadequate, even though the demand for hostel admission was great; and (xii) nine colleges had good playgrounds.

603. *SIE (Maharashtra), A Study of the In-service Training Needs of Headmasters of Rural Primary Schools in Poona District, Poona, 1971a.*

The main objectives of the study were to find out the inservice training needs of headmasters in their academic and administrative work and to collect data for preparing a programme of inservice training for headmasters.

The sample of the study constituted headmasters of 103 primary schools controlled by Zilla Parishad, Poona, which was selected on a stratified random basis from 953 full-fledged primary schools controlled by the Zilla Parishad. Out of these 103 schools only eightyseven schools responded within the scheduled time. The tool used was a questionnaire with two main divisions, viz., the needs of headmasters as teachers and the needs of headmasters as administrators. The main points considered for the tool preparation were (a) general information regarding

academic and professional qualifications and nature of work; (b) needs regarding improvement of their subject knowledge; (c) needs regarding improvement in special methods of teaching; (d) needs regarding knowledge of professional subjects apart from knowledge of special methods; (e) needs regarding skills in the preparation and use of teaching aids; and (f) needs regarding the knowledge of maintenance of registers. Two open-ended questions were also included.

The important findings of the study were that more than fifty percent of the headmasters needed practical knowledge in general science. Nearly one-third of them desired to have knowledge in Marathi grammar and mathematics. The percentage of teachers desiring to get knowledge of special methods in Hindi was higher than that of other subjects. Next in order came the special methods in mathematics. With regard to library facilities, more than fiftyeight percent of headmaster thought that circulating library would be very much useful to them. Though a considerable percentage of them felt that central libraries in different parts of a taluka would do, nearly all of them were not in favour of a central library located in a taluka school. The types of books to be kept in a library, in order of preference would be (a) subject knowledge books, (b) books on teaching methods, (c) reference books and (d) supplementary reading books. For detailed study, preference was given to mathematics by nearly half the number of headmasters. To the question regarding the knowledge of preparing aids in the subject of their choice, general science topped the list with a percentage of 72.4, which was followed by mathematics and Hindi with responses of 65.5 percent and 59.8 percent, respectively. The headmasters were asked to denote areas in which they needed sufficient knowledge so as to guide their assistants. The following four areas were given in order of preference: (a) improvement of present examination system, (b) problems of school discipline, (c) methods of teaching different subjects and (d) presentation of teaching aids. The headmasters thought that the knowledge regarding the maintenance of the following five records was essential: (a) general register, (b) examination results, (c) school repair records, (d) log book, and (e) annual report ending on the 31st March. The headmasters felt that the following subjects should be included in the inservice training course: (a) headmaster's powers and duties, (b) relation between the headmaster and his assistants, (c) school inspection and its method, (d) relation between school, community and workers in educational field,

and (e) school organisation. To an open-ended question regarding their difficulties, more than ten percent headmasters reported following difficulties: (a) inadequate school equipment, (b) inadequate building, (c) noncooperation of local leaders, (d) inadequate staff, (e) noncooperation of parents, (f) noncooperation of assistants and (g) nonavailability of subject teachers.

604. *SIE (Maharashtra), A Study of the Workload of Teacher Educators in Junior Colleges of Education, Poona, 1971b.*

The objectives of the study were: (i) to find out the extent to which the subjects taken at the graduate level, both academic and professional, by teacher educators form the basis of their teaching assignments in junior colleges of education and (ii) to verify the reasonableness of the prevailing complaints about overwork.

The sample of the study comprised all the teacher educators of twentyeight junior colleges which were selected on a stratified random basis. A questionnaire pertaining to general information regarding workload was used for collecting data.

The main findings were as follows: (i) The average number of teacher educators per junior college came to 8.4. More than sixty eight percent teacher educators were permanent. (ii) Out of 202 teacher educators, nearly two-thirds were trained graduates and one-fifth were special teachers. (iii) Nearly one-third of the teacher educators did not teach the subjects which were opted by them at the first degree. (iv) About sixteen percent of the teacher educators taught subjects which they had opted at the professional degree only. (v) Science ranked first where teacher educators had opted this subject at both the degrees — first and professional. (vi) A teacher educator worked for 6.75 hours daily; this included the time which he utilised for reading.

605. *SINGH, L. C. and BHATNAGAR, T.N.S., Status of Elementary School Teachers — A Pilot Study, Dept. of Teacher Education, NCERT, New Delhi, 1966.*

The study was undertaken to investigate into the problems of status of elementary school teachers.

The data were collected through a mailed questionnaire from seventytwo schools (fiftyone boys' and twentyone girls' schools) managed by Muni-

cipal Board of six towns in Bulandshahr district. The completed questionnaires were received from 197 male and 93 female teachers. The questionnaire contained eighty questions covering professional, social, and economic status of teachers including condition of work.

The main findings of the study were: (i) about sixty percent of elementary school teachers were the residents since birth in the district; of the remaining quite a few had been residing in the district for more than ten years; (ii) about fortyfive percent teachers had been teaching for more than ten years in the district and fifty nine percent for one year or more in the same school; (iii) about ninetytwo percent teachers possessed the minimum prescribed academic qualifications, but all the teachers did not possess these qualifications before they became teachers and about twentyone percent of them improved their academic qualifications during service period; (iv) about fifty-five percent had second division and only 1.4 percent had first division, and only 2.1 percent got merit scholarships or stipends at the primary school examination; (v) about one-fifth of the teachers were in the profession without any training; (vi) the position of trained versus untrained teachers (79:21) in the district was better than the position in the state as a whole (62:38), the corresponding ratio for the whole country was 68:32 in 1963-64; (vii) seventynine percent teachers were trained; (viii) some teachers left the nonteaching jobs in favour of teaching for reasons such as (a) love for teaching, (b) admission in training college, (c) lack of interest and low salaries in their earlier jobs and (d) inadequacy of the economic conditions to support further education; (ix) fortyeight percent teachers were the members of the professional associations of teachers; (x) elementary teachers hardly did any professional reading during vacation — they kept busy with social and household work; (xi) about eighty percent teachers were getting the basic salary ranging from Rs. 50/- to Rs. 75/- per month, while 19.6 percent below Rs. 50/- per month; about fifty percent of the teachers did not have any source of additional income to compensate their low salaries and for the remaining teachers additional sources were agriculture, tuition, petty business, etc.; (xii) about thirtytwo percent were either unmarried or had no children; (xiii) approximately thirtysix percent expressed their dissatisfaction with their present income; (xiv) small percentage of teachers were members of village institutions and community organisations; (xv) small percentage of teachers had their fathers working in professional occupations such as lawyers', engineers', teachers', etc.; (xvi) about fiftyone percent teachers

were teaching only one class, 27.6 percent were teaching two classes and twentyone percent were teaching more than two classes; (xvii) majority of the teachers taught all the subjects of the elementary school curriculum; (xviii) a vast majority of the teachers taught forty to fifty class-periods per week; and (xix) teachers at large, attended to the activities like depositing fee in the post office, attending meetings of the centre, maintaining attendance register and other school records.

606. *SRIVASTAVA, R. C., Evaluation of Practice Teaching in Teacher Training Institutions, CIE, New Delhi, 1970.*

The main purpose, here, was to study the aims of practice teaching, its contents and the methods used to evaluate it. The subsidiary purposes were to find out the place of practice teaching in the total programme of teacher preparation and the manner in which the evaluation methods and practices influenced the student-teachers' performance in teaching, to study their attitude towards practice teaching and to study teacher-pupil relationship.

The study involved the content analysis of the prospectus, syllabi, university ordinances regarding examinations, observation and evaluation schedules and an exploratory interview with a few heads of teacher training institutions and student-teachers. Two questionnaires, one for the heads and the other for the student-teachers were also developed and used. Questionnaires were filled in by eightytwo heads of institutions and 200 student-teachers from ten institutions.

The information gathered in this study revealed that practice teaching formed an essential and compulsory item in all teacher preparation programmes irrespective of the fact that the requirement of study and activities for obtaining degree in education were not the same in all the institutions. Place of practice teaching was determined either by relative weightage in terms of examination marks allotted for practice teaching in the total programme or the amount of time or hours of work a student had to put in to complete the requirements of practice teaching in relation to the time used for completing all the requirements of the programme. The marks allotted for practice teaching ranged from a little less than thirty percent to one hundred percent of the marks in theory. There was a great deal of agreement among institutions with regard to the number of teaching subjects required to be opted for prac-

tice teaching, but there was no such agreement on the total number of lessons a student-teacher had to teach or the amount of time he had to spend in completing the practice teaching. Almost all the institutions declared the results of the examinations in the theory and practice separately. The contents of sessional work evaluation were many and varied as theory work, visual education and craft, psychology practicals, extracurricular activities, etc. (Majority of the teacher educators were not satisfied with the system of practice teaching evaluation in their own institutions). Majority of the institutions had some system of internal assessment and most of the institutions did not give more than fifty percent of the total marks for practice teaching in internal assessment. Except two universities, the other examining agencies had not defined and outlined the scheme of marks distribution over the contents of class teaching. The practices of evaluating class teaching were either all internal or all external examinations or combined. The supervisors who observed the practice teaching of students, maintained the grades obtained by students in the practice sessions. The teacher educators maintained that the student-teachers who came to know about their day-to-day performance in practice teaching tried to improve their performance irrespective of their good or bad grades. About 76.8 percent of student-teachers developed unfavourable attitude towards practice teaching. Teacher educators were divided on whether to give feedback in terms of knowledge of results to the student-teachers. Knowledge of evaluating practices in their institutions influenced the student-teachers' standard of teaching interest and liking for teaching. The satisfaction of student-teachers about the evaluation practices correlated highly with their perception of the presence or absence of the element of subjectivity in the evaluation system of their institutions. Student teachers were inclined to favour a system of evaluation which was biased more towards external assessment.

607. *SRIVASTAVA, S., Growth and Organisation of Inservice Programme in India and its Impact on Secondary Schools, Ph.D. Edu., SPU, 1966.*

This study was an attempt at tracing the history of the inservice programme in India from its inception till date and gathering its material from scattered sources. At the same time it was hoped that the study would be of value in the assessment of the movement and the possibilities of desirable modifica-

tions. The major objectives of the present investigation were: (i) to study the historical development of the programme of inservice education in India upto-date with special reference to the agencies involved and the organisational pattern worked out, (ii) to review the variety of activities undertaken by different agencies to provide inservice education to secondary school teachers, (iii) to assess the achievement of this programme with special reference to observable and other types of changes brought about in schools, (iv) to study the factors contributing to the strength and weakness of the different extension services departments, (v) to find out the impact of this programme on teachers' attitude towards teaching profession and (vi) to study some major issues in the field of inservice education in India.

The sample consisted of the following categories of educational personnel and agencies: (a) extension service centres all over India, (b) boards of secondary education of various states, (c) heads of the secondary schools selected on random basis, (d) teachers of the secondary schools selected on random basis, and (e) groups of experts engaged in planning, organising and evaluating inservice education programme. Questionnaires, opinionnaires, attitude scales, and interviews were used. The study was carried out in two parts. In the first part of the study, historical development of the growth and organisation of inservice education was traced in two parts; (i) from 1854 to 1954, and (ii) from 1955 to 1965. In the second part, the impact of inservice education was studied in the following sequence: (i) review of the impact studied by various assessment teams and self-assessment procedures, (ii) study of the impact through questionnaires and interviews, (iii) study of the impact by obtaining evidences of changes brought about in the policies of the state departments on one hand and the study of the changes in the teachers attitude on the other.

The study has shown that there is a significant improvement in attitudes with increasing number of activities attended. It has also revealed that the attitude of the teachers towards the profession as well as towards the extension programmes stabilises after attending four extension programmes. The improvement is rapid after participation in the first activity and it goes on improving upto the stage of participation in the fourth activity. This does not mean that the participation after the fourth extension activity is futile; it indicates only a plateau period. On the basis of the case studies of two extension centres, generalisation has been made that the following factors contribute, to a great extent to strengthening the inservice programme; (i) standing of the

college; (ii) quality of the training college staff; (iii) quality of the extension staff; (iv) practical utility of the programmes; and (v) cooperation of the state departments of education and the inspectorate staff.

608. *TIWARI, R. M., An Enquiry into the Cultural Background and the necessary Cultural Training of Pupil Teachers in Basic Training Institutions in Madhya Pradesh, Ph.D. Edu., Jiw., U., 1968.*

The major objectives were: (i) to determine the concept of culture, especially the Indian culture, (ii) to study the ways and means for the teacher trainees to make them understand, appreciate and assimilate the Indian culture, (iii) to study how far the training programme is culture oriented and (iv) to determine the relationship between the cultural background and the teaching efficiency of the pupil teachers.

The sample included all the training institutions of Madhya Pradesh (fifty primary teacher training institutes — forty men and ten women). It involved 1,000 trainees (800 males and 200 females) and one hundred male teachers and twentyfive female teachers of the 125 primary schools. The data were collected with the help of observation, interviews and questionnaire. Besides, the related official records were studied.

The findings were: (i) the training institutions did not have any definite programme for providing information and knowledge of Indian culture to the trainees; (ii) though there was some provision for imparting cultural knowledge (especially community life) under the training programme, yet due to the absence of proper guidance, much attention was not paid in this direction; (iii) only students of ordinary or low cultural background came to the training institutes; (iv) there was a positive correlation between the cultural background of the trainees and their educational achievement; (v) cultured trainees progressed after training, while the un-cultured did not show any sign of progress; and (vi) only the cultured trainees' actions and behaviour were affected by the training.

609. *UPASANI, N. K., An Evaluation of the Existing Teacher Training Programme for Primary Teachers in the State of Maharashtra with special reference to Rural Areas, Ph.D. Edu., Poona U., 1966.*

The study is an attempt to evaluate the existing primary teacher training programmes in the state of

Maharashtra with special reference to rural areas. The purpose of the study was fourfold: (a) to identify the major strengths and weaknesses of the training programmes from an analysis of the self-evaluation reports; (b) to compare these reports of the principals with the annual inspection reports by the parishad education officers to find out the extent of usefulness of such an external inspection; (c) to examine and analyse the opinions of the parishad education officers and the principals concerning (i) the adequacy of the preparation of the newly trained primary teachers, (ii) the understanding, skills and abilities expected of the rural primary teachers, and (d) to examine and analyse the existing teacher training programmes and to propose suggestions for improvement of those programmes. The major aim of the present study was to examine the hypothesis: 'The existing primary teacher training programme in Maharashtra does not achieve fully the objectives of the training and that the present inspections of the training colleges fail to evaluate the effectiveness or otherwise of the training programmes in all aspects'. The aspects taken into consideration were: (i) instructional objectives; (ii) curricular programme; (iii) organisation of the programme; (iv) staff; (v) student personnel services; and (vi) inspection.

One hundred and eight principals participated in this study. Opinionnaires and questionnaires were constructed by the investigator and used for collection of data. Interviews and inspection reports were other sources of data. Percentages, correlation coefficients, and chi-square test were used for the analysis of the data.

The author has recommended the following: (i) It is very necessary that the minimum qualifications prescribed for recruitment as primary teachers or for admission to training institutions be immediately raised to the completion of a secondary school course. (ii) The present position of the professional training of primary teachers is far from satisfactory especially if it is evaluated in the light of the new challenges in elementary education. (iii) A very serious defect in the practical training is the tendency to confine the practical training to the giving of prescribed number of practice lessons; what is actually needed is a wider conception of teacher education and opportunities to student teachers to acquire various skills. The Indian child needs a down to earth grassroots knowledge of the country's condition. So the teacher has to be well informed, well grounded, effectively participating citizen and has to bring into action special resources of scholarship and practical competence. (iv) There should be a special

agency for the supervision of training colleges (other than education officers who are otherwise busy) with a special officer at the directorate level. (v) The duration of the primary teacher training should be extended to two years.

610. VERMA, I. B., *An Investigation into the Impact of Training on the Values, Attitudes, Personal Problems and Adjustments of Teachers*, Ph.D. Edu., Agra U., 1968.

The major aim of the present investigation was to study whether teacher training made a favourable impact on the values, attitudes, personal problems and adjustments of student teachers and how these variables were related to one another.

The sample consisted of 546 randomly selected student teachers of the B.Ed. course from Rajasthan. Student teachers were tested at the time of joining the course and again the same tests were administered at the time of completing the course. The tools used for collection of data were the Hindi versions of (i) the Allport Vernon Lindzey Study of Values, 1960, (ii) the Minnesota Teacher Attitude Inventory, 1951; (iii) the Mooney Problem Checklist, Adult Form, 1950; and (iv) the Bell's Adjustment Inventory, Adult Form, 1961. Normative survey method was used for conducting the investigation. The data were analysed and studied through frequency polygons, ogives, coefficients of correlation and statistical analysis of the differences between the final and initial scores.

Findings of the investigation revealed that the student teachers had lost significantly in theoretical values, which meant that their interests in intellectual activities had been reduced as a result of undergoing the training programme. They had also lost significantly in economic values which meant that their interests in business and financial matters had been reduced. In aesthetic values there had been a significant improvement as a result of training. Teacher training had neither improved nor reduced the social values of the trainees. Student teachers had neither gained nor lost in the area of political values. In religious values, on the other hand, the interests of the student teachers had shown a trend towards improvement, but not to a significant degree. Impact of teacher training programme on the attitudes of student teachers towards children and school work had been consistently favourable, there being a significant gain in scores at almost all points of the scale. Teacher training had significantly reduced the number of problems in the area of economic security. The trainees now felt more confident to earn a livelihood. Results showed a substantial

reduction in the number of problems of self-improvement, which meant that their desire for self-improvement had been partially satisfied through the training course. As a result of teacher training the number of problems concerning home, family, religion, and occupation had been significantly reduced. As a result of training they had shown a significant loss in their health adjustment. Training had significantly contributed to the improvement of social, emotional and occupational adjustment of the trainees. In the case of attitudes, it was found that the student teachers from higher socio-economic status (SES) had developed a more favourable attitude than other groups. Social class did not show significant influence on reduction in the number of personal problems except that the student teachers of the lower class showed a better gain than other groups in the area of economic security and

self-employment. In the case of adjustment, social class did not show any influence in the areas of home, social, emotional, occupational and total adjustment. Only in the area of health, the upper class group showed greater improvement. Freshmen had gained significantly higher than the student teachers with experience in the development of favourable attitudes towards child and school work. Attitudes of the student teachers were not significantly related to their theoretical, economic, aesthetic and religious values but they were significantly and positively related to social values and significantly and negatively related to political values. Adjustment and personal problems were highly and significantly related. Good adjustment resulted in the reduction of a number of problems, while poor adjustment increased their number.
