

Educational Management and Administration

A TREND REPORT

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Introduction

The concept and philosophy of administration as compared to management can be distinguished by the fact that administration is more concerned with rules, regulations and implementation of a set policy and programme with little scope for variation, change or innovation, and has a high degree of centralization and bureaucratic framework of functioning. Though it sounds, but it is not meant to imply that one (administration) is not as good, viable or desirable as the other (management); the decision of the Editorial Board to have the title Educational Management and Administration in place of the earlier Educational Administration reflects the tendency of the concern and scope of educational field in its operational functioning.

Looking at the research studies, one is inclined to feel that there is a real change in outlook and attitude, if not in real practice, to be pragmatically effective rather than continue to be saddled with the past which can at times be dysfunctional.

In all, 383 studies have been completed till 1983. Seventy-five studies were reported in 'A Survey of Research in Education' (Buch, 1974) and 86 studies in the 'Second Survey of Research in Education' (Buch, 1979) and 222 studies are reported in the present volume. The first studies in the area of Educational Administration were undertaken in the early fifties in Bombay and Lucknow. During the last 32 years there has been a steady progress of research in this area.

Some Salient Aspects of the Studies/Research Conducted

Educational research has gained impetus in the last two decades, more so in the past few years. The increase in research findings has perhaps contributed towards rousing the government into increasing rural literacy, improving educational facilities and fixing standard qualification for teachers. Educational administration deals with matters such as management of educational institutions, implementation of effective managerial practices, human attitudes and values, wastage, stagnation, corruption and bureaucracy. The research in educational administration still centres around description and evaluation of educational structures and agencies. However, a few studies have used models of administration.

At a glance one notices that the population samples of the researches concentrate on the northern, north-eastern and western regions of India. The researches conducted in the two southern States (Kerala and Karnataka) are relatively few. One sees a concentration of research studies from the regions of Andhra Pradesh, Maharashtra, Tamil Nadu and Uttar Pradesh, in that order. However, emphasis has been given to the backward areas of the north-eastern region.

One of the most observable changes in the researches, which has been gaining ground over the past few years, is the emphasis on human relations. The psycho-social aspects of not only administrators and supervisors but also

of students have been evaluated. Work environments, classroom climate, morale of teachers and students, job satisfaction and teachers' and students' attitudes have been dealt with quite comprehensively.

One of the major setbacks of the doctoral researches is that they predominantly centre around school education. The number of research studies on collegiate education is negligible. In the area of data treatment sophisticated statistics have taken over descriptive and aggregate approach of statistics. In-depth field studies involving case study methods have been made use of. Increased use of psychological tests, questionnaires, opinionnaires, inventories is apparent. Data sampling has been done in a very scientific and representative manner in large number of research studies.

The use of statistics such as t-test of significance, the ratios, analysis of variance have rendered the studies statistically more sophisticated and analytical.

One of the observable changes in the doctoral studies is in the scope of subject matter. The research studies cover nearly all the important areas of educational management/administration. From the administration of various types of schools to the administrative processes, organizational climate, students' behaviour, etc., a wide spectrum of areas is covered.

The subject matter of the research studies is classified into the following eight areas:

1. History and development of educational institutions.
2. Administration and organization of institutions.
3. Supervision and teaching methods.
4. Organizational and classroom climate.
5. Wastage, stagnation and dropout.
6. Psycho-social factors/aspects of teachers.
7. Special institutions.
8. Miscellaneous.

HISTORY AND DEVELOPMENT OF EDUCATIONAL INSTITUTIONS

The doctoral and other researches in this area are restricted to school education. The growth and expansion of education at different levels has increased rapidly in all types of educational institutions. Correspondingly, there has been an increase in the expenditure on education (Bajpai, 1981). However, there has been no change in the teacher-pupil ratio (Kaur, 1981).

The authority of administration has been largely vested in the Ministry of Education with very little administrative authority available at the level of the teacher. Despite the increase in enrolment there has been no improvement in the facilities provided—library, building,

laboratory, etc., nor in the working conditions of the staff, as indicated in a study conducted in the State of Uttar Pradesh (Kaur, 1981). This may be true of several other States also.

There has been a sharp increase of educational institutions in U.P., whereas a doctoral study in Bundelkhand area has revealed the presence of one primary school on an average for 1,057 persons with only 57 per cent of the teachers using suitable teaching aids (Vishwakarma, 1981).

With a decrease in the educational standards of public schools, there has been a prolific growth of private schools and colleges throughout India. The national institutes which were set up during the pre-Independence period, have changed rapidly and are losing their uniqueness (Pandey, 1975). Thus, it is not unusual that schools run by industrial concerns and private concerns have better qualified staff and better facilities (Wankadia, 1980). In Madhya Pradesh, over three decades, the number of private schools has increased three-fold (Shrivastava, 1973). Private schools provide better instructional and library facilities (Mehdi, 1979).

The rapid growth of industries in India has also brought to the fore the need for management education. Several institutes now offer part-time and full-time management programmes (Davar, 1977).

ADMINISTRATION AND ORGANIZATION OF INSTITUTIONS

A long-term educational plan for a developing country is an essentiality. An integrated approach has been devised on par with the optimum economic strategy (Rao, 1981). A programming model for Haryana has been devised. It was found that the resource allocation to education is relatively low (around 3.00 per cent) (Vashista, 1980). The same research indicates that educational planning can and should be treated as a continuous process.

The NIEPA has conducted various studies in Jammu and Kashmir, UP, MP, Orissa, Rajasthan, Bihar, Assam, and Andhra Pradesh in relation to universalization of elementary education in the respective States. These exhaustive studies have indicated the percentage of non-enrolled and dropped-out children with the help of census. Proper census figures were maintained either by the headmasters or higher authorities in only three States — Madhya Pradesh, Jammu and Kashmir and Andhra Pradesh. The need for better school committees was apparent. There was scant regard for teaching, supervision and enrolment in the rural areas of these States. The figures also show dropouts at the elementary

school level — higher among girls than boys. In most cases teachers were also burdened with time-consuming administrative tasks. These studies indicate the need for a well-supervised child census programme. The statistical unit, the planning cell and the budget section at the secretarial level need strengthening (NIEPA, 1979).

Educational facilities were found to be better in urban colleges and schools (Gogate, 1980). Likewise, English-medium secondary schools in Maharashtra had necessary facilities to run efficiently with the majority of the headmasters having a master's degree in arts or science (Sukumaran, 1980). In Meghalaya, in the year 1976-77, 79.3 per cent of the teachers were untrained at the middle school level. With the help of UNICEF/NCERT, a science education programme was launched in Meghalaya (Singh, 1980).

The pre-primary education is dominated by nursery schools in Karnataka, where private agencies play a dominant role (Yeli, 1979). However, there does not exist a definite set of objectives of pre-school education. Lack of children's books and manuals, high child-teacher ratio, shortage of competent, qualified and trained educational administrators are among the many setbacks experienced by the authorities in Assam (Deka Gauri, 1982).

In the area of higher secondary schools no clear guidance in organizing the classes is given. Frequent policy changes and low government grants do not facilitate proper functioning of the schools (Patel, 1980). In Kerala, through legislative measures, the Government has increased its powers in recruiting teachers. Teachers' unions with their political linkage have been the chief inspirers of indiscipline (Nambiar, 1976). Several studies have also emphasized the need for non-formal education in rural areas and speedy sanctioning of schemes (Rao, 1980); also the improvement of personal efficacy through formal schooling has been noted (De Rebello, 1979).

In the field of collegiate education, absence of aptitude for medicine and inadequate facilities were the reasons for the deterioration of medical colleges (Somaiah, 1981). In several cases decisions taken by examination committees were not implemented. The state government, however, played a satisfactory role, and dissatisfaction was felt towards the managing committee (Awasthi, 1981).

Failure in the implementation of innovations can be attributed to lack of proper orientation and dissemination of knowledge and if attempts are made to implement the innovations, there is lack of resources. In a study conducted to examine the process of adoption of successful innovations, it was found that barriers of

change centred around (a) lack of time and resources, (b) parental interference, (c) transfer of teachers, (d) lack of guidance, (e) negative attitude of students towards change, and (f) lack of integration of the innovation into the system, etc. (Satyavati, 1980). The age and sex of the teachers, teaching experience, professional training, organizational climate and leadership behaviour patterns of principals were the factors responsible for the poor state of functioning (Vinaitheerthan, 1981).

With reference to the introduction of the semester system, urban and women students favoured it, more so the arts and commerce students. There was no significant difference in the opinion between students and teachers (Pillai, 1979). Roshiah (1980) has found that in Tamil Nadu, the teachers of university and autonomous colleges favoured the semester system. Engineering, medicine, technical and veterinary science students favoured the semester system. Principals and teachers perceived it as desirable but not feasible. Teachers in the age range 31 to 50 years, degree-holders, and males favoured this system.

Akhtar (1980) points out that students favour the semester system because of the division of workload and ability to improve grades. Internal assessment, external examination, grading and marking systems are the methods used to assess students; innovations in teaching methods are possible through this system.

Effective functioning of semester, M. Phil., and correspondence courses is due to effective communication (Rao, 1980). In relation to this a need arises for the creation of Department of Public Relations and Information. A law officer can also be used to aid the registrar. The vice-chancellor's office can be strengthened by providing an executive assistance to the vice-chancellor (Ramaseshan, and Shenoy, 1979). Non-enforcement of conditions of affiliations paved the way for a national level agency for accreditation of teacher education institutions (Goyal and Singh, 1981). The need for effective functioning of the Central Advisory Board of Education has also been emphasized (Sapara, 1980).

Investigations have led to the conclusion that U.P., M.P., Bihar, A.P., Madras and Delhi lay greater emphasis on professional training of teachers and officers. The pay scales from directors to teachers were higher in Maharashtra, Punjab, West Bengal, Gujarat and Bihar. The basic pay and dearness allowance were higher in U.P. (GCPI, 1969).

An educational forecast for India could be an additional two million rooms for primary and 0.8 million rooms for secondary school children in A.D. 2000 as well as 3,000 colleges. If the present trend of production

continued, the stock of educated manpower would be in excess of the manpower needs of the nation in A.D. 2000. Four areas need attention: universal literacy, reducing the high dropout rate, universal elementary education, and augmenting the expenditure on education (Sharma 1980).

SUPERVISION AND TEACHING METHODS

Rajammal (1981) has evaluated major findings with reference to supervisory practices in secondary schools of Tamil Nadu. There is lack of specific instructions, of objectivity in inspection and of weightage to functional programmes. The study also implies that school inspection in Tamil Nadu is administration — and not development oriented. The leadership aspect of supervision is perceived from a bureaucratic rather than a cooperative professional and collegial perspective. Thus, a new set of official guidelines and panels of inspectors need to be implemented.

Pande (1980) states that teacher-trainees at Faizabad lack separate equipped rooms, and have teachers with no knowledge of the subject matter. Dahake (1979) has pointed out the increase of workload on the supervisors brought about by changes in the educational system. Generally, the teachers seem to favour a panel of supervisors. The use of management development programmes proved to be quite interesting and fruitful. Greater insight into teaching was gained through this programme (Upasani, 1980).

The supervision time was found to vary in different classes. Class I received seven minutes for supervision; average time on school supervision was 208.5 minutes and on accounts forty-four minutes (Gupta, 1981).

A study by GCPI (1981) on the effectiveness of panel supervision indicated its inefficient functioning. In installing certain innovations Balasubramaniam (1979) has suggested strategies of research-development diffusion, social interaction, linkage and problem-solving. Sharma (1979) elucidates that the characteristics of a resource system affect the level of adoption of innovation.

A study of the conditions of libraries and reading-rooms in higher secondary schools revealed insufficient equipment, lack of library grants, and lack of full-time librarians (GCPI, 1981).

An evaluation of the hostel education programme of the CSI Council for Child Care (Vedanayagam *et al.*, 1982) showed involvement and participation of students in religious, social and recreational activities. Qualities and capabilities of hostel staff were good.

For providing students with better training and library facilities, a scheme of working holidays was studied. Re-

medial teaching was found to help establish weak areas of students. Academic achievement simultaneously improved self-reliance, self-learning and self-confidence (SIE, Rajasthan, 1978).

ORGANIZATIONAL AND CLASSROOM CLIMATE

The organizational climate of a school is often assumed to have a positive relation to academic achievement. Amarnath (1980), however, has conducted a comparative study of organizational climate of government and privately managed higher secondary schools wherein it was found that the schools did not differ significantly with reference to their organizational climate. There was no positive relationship between organizational climate and academic achievement of students.

It was found that the principal's behaviour might be directly related to the organizational climate; Sainik schools having a good educational environment exhibited better academic results (Khera, 1980).

Students were more satisfied in an autonomous and open climate than in closed and paternal climate. Urban students were found to be less satisfied than rural students (Rastogi, 1981). Urban secondary schools had better organizational climate than rural secondary schools. Teachers of girls' secondary schools were more adjusted than the teachers of boys' secondary schools in the area of home, social and educational adjustment (Pandy, 1981).

However, there is no universal school climate. Each institution has a specific climate. School climate also has an impact on the achievement of students. Achievement was the highest in closed climate followed by paternal and autonomous climates and was the lowest in familiar climates. There was no impact of school climate on self-concept (Shah, 1981).

With the help of pretest-posttest design of experimentation, it was found that teachers' training in verbal behaviour positively enhanced classroom climate, productivity, legitimacy and authenticity, developed vivid self-image and set more realistic goals, (Thangam, 1980). Pupils from a better classroom climate were found to be better adjusted and more independent. A classroom with a better climate had fewer stars and isolates and better social relationship. The socio-economic status of pupils did not affect the climate of a class. The climate in the schools run by convents (religious nuns) was better than that in other private schools (Maria de Sales, 1978).

The influence of home environment on school children was significant. A large family was detrimental to the achievement of pupils, but not to self-concept. The

educational status of the family members influenced achievement scores. Parental interests and positive attitude to the child's school led to better achievement, social adjustment and development of self-concept (Mehra, 1980). Sarma (1978) has indicated that socio-economic status correlated significantly with academic achievement. Absence from school due to illness, poverty, school phobia, household duties, truancy, cultural deprivation, family size, ordinal position of the child, inadequacies in competence and comprehension, awareness and earnestness on the part of a section of the teachers and absence of adequate school facilities affected school attainments. Another study has shown that creative potentialities characterized open schools. They flourished in a responsive and stimulating environment. This is true in Punjab. Possibly it would be applicable to the other States of India as well.

Likewise, colleges were found to have their own unique climate. The low achievers were more satisfied with their environment than the high achievers. The university-managed colleges had better environment than the privately managed and government colleges (Panday, 1980).

Professional and non-professional institutions differed with reference to their environment. Engineering and medical institutions differed from non-professional institutions in eight out of nine dimensions (disharmony, hindrance, support and satisfaction, authoritarianism, trust, democracy and freedom, academic emphasis, discipline and control, lack of facilities).

The environment of medical institutions was totally different from that of non-professional institutions whereas the environment of law and non-professional institutions was alike on eight out of nine dimensions (Shukla, 1980).

WASTAGE, STAGNATION AND DROPOUT

The problem of wastage, stagnation and dropout occupies the bulk of research studies. This problem has been studied in nearly all the States of India. Thus, the findings are representative of the Indian population.

Primarily, it was found that there were errors in data collection; suppression of non-enrolment figures was found among females and literate wives (Sarkar, 1980).

A pilot investigation by Sarkar (1980) indicated that school environment did not contribute to the rate of dropout. Domestic work accounted for 70 per cent of the female dropouts. Inadequate income for living accounted for two-thirds of female dropouts and 80 per cent of male dropouts (Sarkar, 1980).

Poverty, caste, poor educational background of pa-

rents, poor quality of teaching, faculty admission policy, death of parents, undernourishment, mental retardation were some of the reasons for wastage and stagnation. Grade I had the highest percentage of wastage, i.e., 31.8 per cent (SIE, 1969).

The highest absenteeism was observed in January, February, April and October. This is related to the cycle of agricultural operations, festival celebrations and marriage seasons. Government schools showed the highest percentage of wastage (Pratap, 1971).

An evaluation of wastage and stagnation reasons in rural Andhra Pradesh by the Bureau of Economics and Statistics (1970) has endorsed the above findings. Moreover, it was found that the largest percentage of dropouts due to household duties was noticed in Standard V while that due to financial difficulties in Standard I. The dropouts were numerous in the lower income group.

Pillai, Benjamin, and Nair (1980) in Kerala have arrived at similar conclusions. They found that dropout incidence was higher in the primary stage and more among boys. Students belonging to SC/ST and other backward communities constituted the majority of the dropouts. Large size of the family was found to exert influence on the dropout rate.

Vathsala (1981) has identified dropouts as having low self-acceptance and achievement motivation. They have a neurotic predisposition. Potential dropouts were more in rural than in urban schools.

The percentage of enrolment also increased with increase in family income. Non-enrolment also increased with increase in family income. Non-enrolment was reduced to 2 per cent in those houses whose heads were educated beyond matriculation. Four school variables — number of teachers, building condition, number of rooms, and headmaster's qualifications — correlated significantly with the rate of non-attendance. Social values and expectations were responsible for poor female attendance (A.N. Sinha, Institute of Social Studies, 1981).

In Karnataka, however, space was not related to wastage as also the school building and furniture. The rate of wastage was positively related to pupil-teacher relation. Wastage cases as against stagnation cases, perceived their teachers as strict. Marked differences between the perceptions of wastage and stagnation cases on the part of parents, teachers, family and instructional variables could be observed (Kasinath, 1980).

One of the major reasons for the female dropout in schools was lack of separate schools for girls, distance of school from home, and domestic work (Srivastava, 1980). Dropout rates at the middle school level were less

than at the high school level. Wastage was very high at the undergraduate level. Postgraduate education had a lower dropout rate. Withdrawals were found at the undergraduate levels (Ramanujam *et al.*, 1979).

Sex played a high role in the probability of passing at the high school level and undergraduate level with girls having a higher probability of passing. The entry level qualification has an impact on passing at the postgraduate level. The same reason increased the probability of dropping out in the case of engineering and diploma courses (Ramanujam *et al.*, 1979).

The majority of the dropouts were found at the end of the second semester or beginning of the third semester in engineering courses. Students allotted civil engineering course left the course. Dropping out due to failure in mathematics was high (Patel, Diwan, 1981).

Stagnation in collegiate education was also due to dearth of competent teachers, inadequate attention and lack of facilities (Bose and Mukherjee, 1971). High dropout rates were found among polytechnic and day scholars. The stagnation rate for engineering degree course was 1 per cent compared to 19.9 per cent for diploma course (Khan, 1977). To reduce stagnation, dropouts and wastage, non-graded units were introduced in various stages. Pillay (1982) found that teachers favoured non-graded units, which minimized the dropout. But additional work was not given to the gifted, nor were slow learners attended to. The lack of orientation of teachers and increase in stagnation at Standard III reduced the efficacy of the elementary school system.

The impact of the non-detention policy on the dropout was fairly good. There was a slight reduction in the dropout rate at the primary stage and at the secondary stage the rate fell by 25 per cent (the State Council for Educational Research and Training, Hyderabad, 1978). The policy of non-detention reduced educational wastage with a capacity to retain girls, increasing over a period of time. However, on introduction of this policy, the quality and standard of education deteriorated (Sharma, 1981).

In Karnataka, CARE has undertaken the midday meal scheme. It was found that the mean percentage of attendance increased. Absenteeism not only decreased but the midday meal programme produced stability in attendance and increased the enrolment rate by 4 per cent (CARE, Karnataka, 1977).

The night schools in Andhra Pradesh did not prove to be a very beneficial scheme in the field of primary education.

In predicting the dropping out tendency of stay-ins, low achievement motivation, poor school adjustment, high neurotic tendency, low educational interest in-

creased the proclivity of a student to drop out at the secondary level (Mohan, 1981).

PSYCHO-SOCIAL FACTORS/ASPECTS OF TEACHERS

A survey research was conducted to complete human resource development on the basis of the level of educational attainment and number of persons in relation to population. There was a strong preference for white-collar jobs among students. Their general problem was one of directionlessness. The traditional lock-step system of structure was found to be irrelevant. Unemployment was found to be high even in well-defined high level manpower (Shastri, 1977).

The increase in vocational courses has been phenomenal over the years with a larger proportion of girls taking up vocational courses. However, the courses offered for vocational education are not consistent with the skills identified (Thimmaiah and others, 1981). The vocational courses at the +2 level were found to be inadequate and not specific. They felt the need for continuation of the vocational stream to the +3 stage. This would be more suitable for the less capable students also (Pillai and Thangaswamy, 1981).

The administrative and leadership behaviour of principals influenced the traditional or progressive character of the schools. A negative relationship between dogmatism and teachers' morale was found (Rajeevalochana, 1981).

Desai (1979) has charted a leadership profile of a vice-chancellor. He is a typical academic bureaucrat dedicated to public service. Educational leadership can be described in terms of the dimensions of leadership scale, viz., initiating and consideration. In general, leadership style influences teachers' morale. There was pre-dominance of the consideration style of leadership in administrative behaviour. The initiating style of leadership appeared to be related to teachers' attention to their jobs (Shukla, 1981).

On the other hand, Kaushik (1979) found that principals of colleges were highly ego-centric, interactive, flexible and achievement-oriented. Patterns of real and ideal administrative behaviour were found to differ. Acceptance of leadership is a function of extra centric, interactive, democratic, progressive, flexible, achievement-oriented and tolerant behaviour.

School principals, on the other hand, manifest HH pattern of leadership to the extent of 44 per cent and LL pattern of leadership to the extent of 34 per cent. Schools manifesting HL pattern of leadership behaviour had the best goal focus, innovativeness and

problem-solving capacity (the tools used being the Leadership Behaviour Description Questionnaire of Halpin and Croft, and Organizational Health Description Questionnaire of the researchers) (Darji and Dongre, 1982).

The administratively effective college principals appeared to generate low degree of teachers' alienation. Teachers in large collèges were found to be alienated as also teachers in private colleges (Shukla, 1980).

Kulshreshta (1977) has suggested an approach to the formats of performance appraisal of college teachers. The key areas being recommended are academic performance, research and teaching curricular and extra-curricular activities and extension services.

Vyas (1980) has arrived at certain factors affecting teachers' morale. Teachers' morale was found to relate positively to lower teaching experience, undergraduate teachers, and teachers' adjustment; significant relation was found between teachers' and students' morale in boys' and girls' colleges. Significant and positive correlation was found between the classroom morale and the academic achievement of students. Rural colleges and urban colleges differed in classroom morale (Thapliyal, 1981).

In a study of job motivation by Bhargava (1978), police personnel, doctors, teachers and advocates differed in terms of their motives. A study on the Block Education Officers of Haryana indicated job satisfaction. They perceived their jobs as being fairly well done by themselves (Singh, 1982). Job satisfaction was found to be unrelated to the achievement index of schools (Rao, 1977).

Enrolment in part-time diploma programmes has fulfilled certain status and security needs of employees. It has also helped develop self-confidence and rational thinking (Kulkarni, 1982). At Kanyakumari and Anantpur, Jain and Kurulkar (1980) identified nine vocations keeping in view the employment and marked potential of rural women.

Not only the psycho-social aspects of teachers and students but also the basic physical characteristics of students have been studied. Chaudhary (1979) found rural boys to be quicker and more agile than urban boys. The socio-economic status influences speed and agility. The urban boys had, however, more strength and power. However, rural boys had greater endurance and flexibility. Satyavati (1980) found urban boys to be weightier than rural boys. The rural girls were taller than urban girls after the 16th year; boys had greater neck circumference while girls had larger hip girth.

Only one study has been conducted on the social and economic problems of adolescent girls. Tohsin (1978)

shows that frustration increased with maturity and change in physique, pimples, acne, fatness or leanness, etc. Major social problems were related to social acceptance, physical appearance, social status, parental restriction, restriction in relationship with peer members, dowry, etc. Economic conditions also resulted in frustration. The problematic areas were health, physical growth, finance, living conditions, employment, sex, home, family, etc.

The area of field instruction has remained unexplored. D'Souza (1978) has emphasized on this form of teaching in the area of social work. Problems that arose from this were the unequal marks allotted to field instruction, lack of staff, and lack of specialization. He also found urban bias in postgraduate social work.

A single study by Verma (1975) on role performance and role conflict found the largest number of role conflict situations in the area of personnel administration, supervision, students' participation, admission. Role conflict was positively related to worry. Role conflict was also related to population of the school and higher experience of principals. Role performance varied with different levels of role conflict.

A nutritional study on children of school-going age indicated a deficiency in protein, calcium, riboflavin and vitamin A.

SPECIAL INSTITUTIONS

Despite the fact that 1982 was the year of the physically handicapped, there is dearth of research in this area. Usha (1981) has studied the problems related to the physically disabled. The management of the schools and their authorities have been traced. The undefined nature of special education, special facilities and equipment for the handicapped are major problems; services of psychiatrists and therapists are not available; Braille books are not available. Lack of parental education and administrative coordination were some of the problems confronting these schools.

Nirmala (1981) has pointed out the difficulty in job placement of the physically handicapped. Communication to the rural areas about the availability of special facilities was lacking. The government grants were inadequate.

The TTTIs and polytechnic colleges have warranted indepth research. Saka (1981) has pointed out the need for utilization of library facilities for the public as well as for the students. Recommendations have been made for better resource utilization in polytechnic colleges in collaboration with TTTIs.

Mukhopadhyay *et al.* (1981) have brought out the dif-

ferences between high collaboration polytechnics (HCP) and low collaboration polytechnics (LCP). The HCP differed significantly from LCP in staff-student ratio, initiative in staff development activities, library and laboratory facilities, use of teaching aids and methods.

The Planning Commission, New Delhi (1964) conducted a factual survey of junior technical schools in A.P., M.P., U.P., Kerala, Punjab, Tamil Nadu, and West Bengal. Fifty-six per cent of the schools admitted forty-one to sixty students and the total utilization coefficient was 35.5 per cent. The States differed from each other with reference to wastage, utilization and achievements.

The industry-polytechnic collaboration has been studied by Indiresan (1982). Private polytechnics and large institutions have better collaboration with industries. Regional polytechnics with sandwich or post-diploma courses and with industrial liaison committees have a higher collaboration index. The western and southern regions have better collaboration index than eastern and northern regions.

Apart from the polytechnics and TTIs, other special schools have been studied. Bhagia's (1979) study of the working of UNESCO clubs indicated that these clubs were found in urban areas and in the precincts of libraries or institutions. Their sources of income were donations and membership fees.

The Sanskrit schools of U.P. show dissatisfaction with the management and hostel facilities provided. Dissatisfaction is expressed towards the Central Sanskrit Board and University for lack of proper syllabi. There has been no amendment of their policy over a decade. The principals agree in their opinion of poor school conditions.

The Shikshaniketan is another school which originated in the pre-Independence period. It progressed in its activities from primary to adult education and it now concentrates on the integration of rural development schemes (Banerjee, and Majumdar, 1981).

The ashram schools in Bihar which originated as education centres for the tribal population, have lost their major aim. Although the students in these schools are residents, the dropout rates are fairly high. The high cost of the school is because of the boarding and lodging provided to the students.

Correspondence institutions have gained impetus over the years with 25 per cent of the registrants being females in Delhi. The age range was 18 to 21 years and they belonged to low and medium income groups. The majority of the students studied between 13 and 24 hours a day. A majority of the students considered the course of English to be not comprehensive (Dewal, 1982).

The various special schools have been studied in specific areas. Can one generalize the findings to the Indian population?

MISCELLANEOUS

Sharma (1981) has conducted an *ex-post facto* research on the effectiveness of NCC programmes with reference to some characteristics of cadets. NCC cadets were found to have high achievement and self-confidence concept. They had higher aesthetic and social values than non-NCC students. However, they had greater adjustment problems in the home, emotional, and educational areas. NCC training had developed high character and moral integrity among the cadets.

In the field of school education, preschool education is found to have positive effect on secondary education. The achievement of children who completed their preschool education, was higher, especially in the areas of (a) picture-drawing ability and (b) punctuality and participation in sports (1980).

Khobragade and others (1980) have identified the employment opportunities of diploma-holders in civil, mechanical, and electrical engineering in the public and the private sectors.

An appropriate study on the choice of medium of instruction (Jagannadhan, 1979) indicated that a universal language throughout India is an essentiality. This study also indicated that students preferred English as medium of instruction.

Lina (1980) has delved into the aspect of low cost food mixes for pre-schoolers. She found that PCM was prevalent in the second year of childhood. Vitamin deficiencies were maximum in the fifth year. In Kerala, 70 to 90 per cent of the income of families was spent on food. Children on the supplementary diets grew better with serum protein increase and nitrogen retention.

To culminate the research studies, Nain, Srivastava, and Bolar (1975) have assessed manpower requirements at microlevel in the north-eastern region. They emphasize the need to take into account educational, training, and employment costs, before arriving at any vital decision. The cost of a manpower plan needs to be budgeted. The strategy of manpower education and training should be a long-term strategy which will balance the region's economic growth potential and the required levels of education and skill training, building up a relevant education design for realistic social aspirations.

Conclusion

Even a cursory look at the number of studies con-

ducted reveals that the area has attracted the attention of a very large number of researchers in India. However, this should not be taken to imply that the area has been explored exhaustively. On the contrary, many of the studies are just peripheral to the main concern of educational management. Thus, the researchers have to set clear priorities in order to make future studies more relevant and meaningful.

Some of the important aspects of educational management which are to be explored are: role conflict in an educational institution, a critical analysis of Educational Acts, crucial factors influencing the universalization of education, development and trying out of leadership training programmes, institutional viability in terms of size and curriculum offering, evaluation of management practices adopted by different educational agencies and effective functioning and management of colleges.

There is need to conduct studies on wastage and stagnation in urban areas, going into the depth of the causes which would include economic, psychological and sociological factors. Studies are required to be undertaken with regard to the physically handicapped and their problems, highlighting the compensatory strengths which exist in the physically handicapped as a group. In-depth studies should be conducted in relation to psychological and motivational characters of students and teachers. Studies are also needed with respect to planning administration specially of large educational institutions, including universities. The studies should have greater dependence on data collected from direct primary sources rather than using any secondary data. Also, researchers should use multiple techniques and methods in order to get a better, deeper and more comprehensive understanding of the issues and factors involved.

ABSTRACTS: 1243-1450

- 1243.** AICTE, *Manpower Assessment and Analysis in Industry for Education and Training*, Eastern Regional Committee, Calcutta, 1976

The major objective of the study was to assess the manpower in industries and do job analysis of the technicians working in the industries with a view to providing essential prerequisite to planning for technical education in the country.

Two industrial organizations, viz., Tata Iron and Steel Company (TISCO), Jamshedpur, and Rourkela Steel Plant, were selected. An expert committee was formed, which decided upon the type of information to be collected from the industries. A study group was appointed by the expert committee to undertake the actual work in the industries. Manpower analysis for education and training and functional analysis were carried out.

The findings of the study were: (i) There were ten different functional headings, such as research and development, planning, management and technical service, etc., in Rourkela Steel Plant and the number of such functions in TISCO was eight. Each functional heading was associated with a group of activities. (ii) Two distributions of technical manpower (managers and supervisors) in different job levels were prepared separately for TISCO and Rourkela Steel Plant, which highlighted the relationship between academic qualifications and technical education of technical manpower in different job levels. (iii) There was urgent need for rethinking on the planning of our technical institutions and their outturn.

- 1244.** AIKARA, J., *Implementation of the Higher Secondary in Bombay*, Unit for Research in the Sociology of Education, TISS, Bombay, 1978

The study was undertaken in order to find out (i) the main problems experienced by schools, colleges, teachers and students, and (ii) the drawbacks in the implementation of the higher secondary with special reference to Bombay.

Ten institutions each from three categories of institutions, namely, colleges, schools running the higher secondary classes and schools which discontinued the higher secondary classes, were selected. The selection of institutions was done randomly. Data for the study were

collected by interviewing the principals and from the records in the colleges/schools.

The major findings of the study were: (i) The new system was welcomed in schools and colleges. (ii) The government was blamed for introducing it without preparation and without meeting the exigencies arising because of the change from the old to the new pattern. (iii) The academic content was much better. (iv) Though the major objective of the higher secondary was to provide vocational content, in Bombay the content at the higher secondary was purely academic. (v) Permitting introduction of higher secondary at both schools and colleges was a pragmatic rather than academic decision. (vi) The objectives and advantages of the higher secondary were not properly communicated to teachers, students and parents. (vii) Many of the policies failed or met with formidable difficulties because of inadequate planning.

- 1245.** AKHTAR, P.R., *A Critical Study of the Semester System in Selected Universities in India*, Ph.D. Edu., MSU, 1980

The objective of the study was to investigate the semester system in selected universities in India with particular reference to (i) purposes of introducing the semester system, (ii) flexibility and freedom in the formulation of courses, (iii) the methods of teaching adopted by teachers on account of the academic freedom provided to them, (iv) evaluation, (v) the opinion of teachers and students with regard to academic improvement and study habits, (vi) the difficulties faced by teachers and students, and (vii) the attitudes of teachers and students towards the semester system.

The sample was drawn randomly from ten selected universities of India. In all, 583 students and 363 teachers were included in the sample. Data were collected with the help of two questionnaires developed by the investigator in order to study the purposes of the semester system and to study the opinion of teachers and students about the semester system. Their attitude was measured with the help of an attitude scale. Unstructured interviews also were held to substantiate the responses given on the questionnaires. The data obtained were analysed by computing the percentages of responses on the questionnaires, calculating coefficient of correlation by rank difference method and using t-test for comparisons.

The major findings of the study were: (i) The university authorities took initiative in introducing the semester system with the help of experts. Teachers also were involved in such decision-making. (ii) The semester system was implemented to assess the day-to-day performance of students, to provide flexibility and freedom in teaching and evaluation and to provide freedom in framing the courses and to give opportunity to brighter and weaker students to make progress. (iii) Teachers' opinion was that they enjoyed flexibility and freedom in the formulation of courses. (iv) In most of the teachers' and students' opinion, students preferred courses under the semester system because it divided the workload and made provision to improve the grades through continuous assessment. (v) On the question that the semester system kept the students busy throughout the year, the opinion of the teachers and the students was divided. (vi) About 30 per cent of the teachers and 50 per cent of the students did not prefer the courses under the semester system whereas others preferred. (vii) A large number of teachers felt that the semester system gave them freedom to use alternative methods of teaching, but still the lecture method dominated the scene. (viii) A large number of students (60 to 65 per cent) from the undergraduate and postgraduate classes felt that the present method was satisfactory as lecture, discussion, team teaching programmed learning, quizzes and field work, etc., were used by the teachers. (ix) Out of the ten universities selected nine assessed the students through continuous internal assessment. Along with internal assessment, external examination, grade and marks system prevailed in the universities. (x) Internal assessment increased the cordial relationship with the students and encouraged innovations in teaching methods. (xi) Teachers felt that the semester system helped in the academic improvement of the students as it made them study systematically all through the year. (xii) Students devoted more time for studies. (xiii) A section of teachers faced difficulty due to a few reasons. Inadequate teaching time, increased clerical work, pressure of increased evaluation of home assignments and more of holidays brought difficulty to the teachers.

- 1246. AMARNATH, *Comparative Study of the Organizational Climate of Government and Privately Managed Higher Secondary Schools in Jullundur District*, Ph.D. Edu., Pan. U., 1980**

The major hypotheses of the study were: (i) There are global differences among the government and privately managed higher secondary schools on each dimension of

the organizational climate. (ii) The organizational climate of the two types of schools does not differ significantly. (iii) The variables of principals' behaviour are more dominant than those of the teachers' behaviour in accounting for variations in the organizational climate. (iv) There are no significant differences in the job satisfaction of principals as well as of teachers as a group. (v) There is a significant relationship between the organizational climate of the two types of schools and the job satisfaction of principals and of teachers working therein. (vi) There is positive relationship between the organizational climate and the academic achievement of students of government and privately managed schools.

The sample of the study comprised the principals of all the thirty-two higher secondary schools of Jullundur district, and at least nine teachers from each of these schools. Data were collected with the help of the Organizational Climate Description Questionnaire (OCDQ) by Halpin and Croft and teachers' job satisfaction scale developed by the investigator. For assessing the academic achievement of the students, the mean scores of the results of Higher Secondary Part II examination for the years 1977-1979 were taken into consideration. The data were analysed by using analysis of variance, t-test, and product moment coefficient of correlation.

The major findings of the study were: (i) The government and privately managed schools, as a group, did not differ significantly in their organizational climate but differed from school to school and no two schools had similar organizational climate, which was attributed to the differences in the personality traits of the principals and the teachers. (ii) The principals of both types of schools did not differ in their behaviour as leaders. (iii) The teachers, too, did not differ significantly in their behaviour, as a group, except in the variables of disengagement, *esprit*, aloofness, and thrust. (iv) There was no difference in the dominance of principals' behaviour and teachers' behaviour accounting for variations in the organizational climate of the schools. (v) There were no significant differences between the relationship of organizational climate with the job satisfaction of the principals as well as of the teachers, of both the types of schools. (vi) The organizational climate of a school did affect the job satisfaction of the teachers. (vii) There was no positive relationship between the organizational climate and the academic achievement of the students.

- 1247. A.N. SIMHA INSTITUTE OF SOCIAL STUDIES, *A Survey of Non-enrolled, Non-attending and Drop-out Children of 6-14 Age Group***

in Hazaribagh District, Patna, 1981

The hypotheses of the study were: (i) The rates of non-enrolment, non-attendance and drop-out are inversely related to the socio-economic status of the family. (ii) Children of educated parents are more likely to enrol/attend on a regular basis than those children whose parents are illiterate. (iii) In general, the incidence of non-enrolment, non-attendance and drop-out is greater in rural areas than in urban population. (iv) As compared to boys, fewer girls tend to enrol and a larger number of them tend to drop out from school because there is less strong cultural expectation with regard to the education of girls and because their services are more often required at home. (v) The attracting and holding-power of poorly equipped and poorly staffed schools with poor school climate is much less than that of the schools which are better endowed with these facilities.

The study was undertaken in the district of Hazaribagh, which had the lowest literacy rate and the highest drop-out rate among all the districts of Bihar with a sizable proportion of tribal, scheduled caste, backward and high caste population. From this district, five blocks, two from urban areas and three from rural areas, were selected for the study. From each block five primary and five middle schools were selected. Thus, a total of fifty schools (twenty-five primary and twenty-five middle) belonging to fifty villages were sampled for the study. For the household survey, an average of 100 households were selected and 5,000 schedules were canvassed to collect information regarding enrolled, non-enrolled, drop-out and irregularly attending children and socio-economic data of the family. For ascertaining the views of teachers, administrators, village officials and parents, 500 interviews were conducted with 100 interviews from each block. The extent of drop-out was measured by the cohort method. Data were collected through household schedules, school information blank and interview schedules. The data were analysed by calculating percentages and correlation coefficients.

The major findings of the study were: (i) 60.31 per cent (urban 71.8 per cent, rural 51.67 per cent) children were enrolled, 31.68 per cent (urban 20.5 per cent, rural 40.02 per cent) children were non-enrolled and 8.01 per cent (urban 7.61 per cent, rural 8.31 per cent) children were drop-outs, in the age group 6-14. (ii) The position of the enrolment was better in the case of boys (69.27 per cent) than in the case of girls (48.45 per cent). However, it was seen that a greater percentage of boys (9.4 per cent) left the school prematurely compared to girls (6.10 per cent). (iii) While non-enrolment was only minimal

among advanced caste groups it was in alarming proportion among the Scheduled Caste group (urban 34.2 per cent, rural 58.66 per cent) though drop-outs across caste groups did not reveal any consistent trend. (iv) The percentage of enrolment increased with increase in family income; however, the incidence of drop-out was not related to income. (v) Businessmen, service men, doctors and lawyers were much above as compared to unskilled workers, skilled workers, petty businessmen and cultivators in sending children to schools and making them stay there. (vi) Non-enrolment was reduced to a negligible 2 per cent in the households whose head was educated beyond matric; the drop-out rate also reflected the same trend. (vii) A majority of the guardians revealed that economic hardship was the main reason in the case of boys' and girls' non-enrolment. The next important reason mentioned was employment in the case of boys and domestic engagement in the case of girls. Some other reasons were: poor school condition, lack of interest of the child and negative attitude towards education. (viii) Economic hardship, children's employment, domestic engagement and child-marriages accounted for the withdrawal of 94 per cent children in the urban and 89.7 per cent in the rural areas. (ix) Fifty-five per cent children left the school between Grades I and IV and 32 per cent between Grades V and VII. The incidence of drop-out at the primary stage was higher in rural (55.46 per cent) than in urban (51.52 per cent) schools. (x) Sex-wise variation in the extent of drop-out did not reveal much difference. (xi) The teacher-student ratio was below the optimum level in urban schools (primary 1:24; middle 1:28), but was much above that level in rural schools (primary 1:52; middle 1:45). (xii) There was an acute shortage of teaching aids in the sampled schools. (xiii) The drop-out rate was significantly correlated with the number of teachers in the school, the number of science kits available in the school and headmasters' qualifications. (xiv) Four school variables, namely, the number of teachers, building condition, the number of rooms and headmasters' qualifications, correlated significantly with the rate of non-attendance. (xv) Eighty-six per cent respondents considered poverty, 41.88 per cent considered negligence of parents and 35 per cent considered illiteracy to be the reasons for the drop-out in elementary grades. (xvi) According to the respondents much of the blame lay with parents or guardians for children's absenteeism. They were either negligent or detained the children for domestic work or employed them for monetary gains. Their poverty and illiteracy were functional in this respect. (xvii) The social values and expectations, emerging from widespread illiteracy in society, were responsible for poor female par-

ticipation in the educational system. (xviii) Fifty per cent opined for canvassing to create favourable attitude and interest in education, while 32 per cent suggested provision of midday meals in schools. (xix) Fifty-five per cent respondents wanted some kind of modification in the present educational system; a majority, 54 per cent, wanted an easier syllabus, 45.32 per cent suggested reduction in the number of subjects and 32 per cent asked for job-oriented courses for children. (xx) Thirty-eight per cent respondents suggested non-formal method for those children who were unable to come to school during school hours.

- 1248.** ANANTU, J., *A Study of Private Managements in Higher Education: Bombay and Marathwada*, Ph.D. Soc., TISS, Bombay, 1978

The objectives of the investigation were: (i) to study the pattern of establishment and growth of private managements, (ii) to study private managements, with specific regard to their membership, governance, goals and finances, (iii) to study the government policy towards the encouragement/discouragement of private involvement in higher education, (iv) to compare the emergence, development and functioning of private managements in urban and rural regions, and (v) to analyse the growth, membership, government policy and functioning of private managements.

For obtaining empirical data all possible sources — oral, written and personal observations — were tapped and a variety of techniques were used. Thus the documents (historical records and writings) and the data collected during the course of field study including personal observations and a series of personal interviews with respondents in relevant positions in the higher education system played equally important roles.

The major findings of the investigation were: (i) The growth and development of private initiative led to rapid expansion of higher education. In Bombay, the expansion had a basis of real demand, in Marathwada it was the created demand. (ii) The involvement of private managements extended into the academic and administrative areas. There was a great deal of variation in the patterns of involvement between Marathwada and Bombay. (iii) The principal had dual accountability, to the management and the university. How he conducted himself at both the levels — of the college and the university — was influenced by whether he was a member, a promoter, an employee or an adviser in relationship to the management. (iv) The patterns of involvement of private agencies varied between Bombay and Marath-

wada, not only because of the intra-organizational characteristics but also because of the differences in the ethos and culture of the larger community and structure. (v) The legal character and accountability of private managements needed clarification.

- 1249.** ARORA, P.N., *Students' Perception of Some Problems and Issues in Higher Education*, Dept. of Measurement and Evaluation, NCERT, 1979

The major objectives of the study were: (i) to ascertain the reasons which prompted students to enter higher education, (ii) to identify students' perception of the occupational world, and (iii) to find out the extent of their involvement in studies.

The sample comprised 313 students studying in the first year of college out of whom 131 had taken up social sciences and humanities courses, 89 physical sciences and 93 commerce courses. These students were from seven colleges of Delhi. A specially prepared questionnaire was used to collect data. The statistical techniques used for analysing the data were percentage and chi-square.

The major findings of the study were: (i) Sixty-eight per cent students belonged to white-collar families. Of these, 12 per cent belonged to professional and semi-professional groups and 56 per cent to the service group. About 23 per cent were from business families. (ii) There was real association between the occupation of the father and the academic achievement of the student. (iii) There was significant association between the economic status of the parents and the academic achievement of the student. (iv) There was strong association between the level of education of the father and the level of academic achievement of the student. (v) Predominantly academic reasons were mentioned by the majority of the students as the most important consideration for entering higher education. (vi) About 26 per cent students aspired to enter service and most of them were from social sciences and commerce groups. About 25 per cent desired entry into medical profession. (vii) The students of first year were found to devote, on an average, 2.55 hours per day to home study. The girls devoted less time (2.50 hours) to their studies than the boys (3.06 hours).

- 1250.** AWASTHI, J.N., *Administrative Problems of Principals of Affiliated Colleges of Avadh University*, Faizabad, Ph.D. Edu., Avadh U., 1981

The study was designed to find out the characteristics of teachers and principals of colleges affiliated to Avadh University, Faizabad, and aimed at highlighting the problems faced by the principals in dealing with the management, university office, the state government, teachers, office staff, students and their guardians.

A questionnaire concerning different types of administrative problems was prepared and data were collected from twenty-four degree colleges affiliated to Avadh University. The data so collected were supplemented through personal visits to the colleges and through observations during these visits.

The findings of the study were: (i) More than half of the principals had only master's degrees whereas quite a few of the teachers working under them possessed doctorate degrees. (ii) It was reported by the principals that the Executive Council of the University and the Examination Committee met regularly but the decisions taken by the Examination Committee were very often not implemented. (iii) The principals were, in general, satisfied with the role of the state government. (iv) Most of the principals were not happy with the functioning of the managing committees. They felt that the managing committees interfered with the day-to-day functioning of the colleges. At the time of appointment of teachers the managements were guided by feelings of caste and kinship. The management showed favours to certain teachers and this created groupism among the staff. (v) The principals were not very happy with the functioning of the teachers. They felt that the teachers did not take their invigilation work seriously. They showed special favours to girl students. (vi) In general, the principals were satisfied with the working of their office staff, which was generally hard-working and obedient. (vii) It was felt that the rush of admission was difficult to control and it resulted in overcrowding in the classrooms. Adequate finances were not available for the expansion of buildings and provision of adequate library and laboratory facilities. It was not possible to establish closer contact with the students, which led to increase in indiscipline among them. (viii) The principals were critical of the attitude of parents also. They felt that instead of cooperating, a majority of the parents interfered with the working of the colleges and were at times rude to them and to the teachers.

- 1251.** BAJPAI, L.B., *Progress of Higher Secondary Education in Uttar Pradesh in the Post-Independence Period*, Ph.D. Edu., Kan. U., 1981

The study dealt with the progress of higher secondary

education in Uttar Pradesh in the post-Independence period (1947 to 1975). Higher secondary education in Uttar Pradesh pertained to Classes IX to XII. Data for the study were collected from various government publications and the annual reports on the progress of education.

The main findings of the study were: (i) In the year 1947-48, there were 499 higher secondary schools in Uttar Pradesh. The number of students enrolled in them was 2,37,028 and the number of teachers was 12,210. Corresponding figures for the year 1975-76 were: 4437 schools, 27,93,389 students and 1,01,718 teachers. (ii) The increase in the number of higher secondary schools in the post-Independence period was 796 per cent and the percentage increase for the students and the teachers was 657 and 733, respectively. (iii) The expenditure on higher secondary education increased from Rs.5.34 crores in 1950-51 to Rs.65.1 crores in 1975-76. (iv) In the year 1950-51, the expenditure on higher secondary education formed 8.7 per cent of the total budget. In 1975-76, it formed 6.7 per cent of the total budget. (v) The break-up of expenditure on education showed that 87 per cent of the total expenditure was increased on the salaries of teaching and non-teaching staff. 5.3 per cent was spent on equipment and 7.7 per cent was spent on other miscellaneous items. (vi) Whereas in the First Five Year Plan Rs.1.25 crore was spent on higher secondary education, the allocation in the Fifth Five Year Plan was Rs.25.90 crore. (vii) The per student expenditure in 1965-66 was Rs.105.96. It rose to Rs.225.82 in the year 1975-76. (viii) The per teacher expenditure in 1965-66 was Rs.2143. It rose to Rs.4416 in the year 1975-76. (ix) In the year 1951 the percentage of successful candidates in high school examination was 59.06 and that for intermediate students 59.5. The corresponding percentages for the year 1976 were 39.9 and 47.9.

- 1252.** BAKHSHI, S.J., *Crisis in School: a Study of Factors Hindering School Improvement Programmes*, Ph.D. Edu., MSU, 1980

The main objective of the study was to identify factors which hindered school improvement programmes and to examine the possible relationships of some selected variables to the degree of adaptability of the school. The factors studied in the enquiry were leadership behaviour of the school principal, organizational climate prevailing in the school, teachers' morale, change-proneness of the school teachers, perceptions of the community about the school, perceptions of the school principals about the community, perceptions of the school principals about

the supervisory agency, and, lastly, perceptions of the supervisory agent about the barriers to change in schools. The study examined five hypotheses, viz., positive relationships existed between the adaptability of the school and (i) leadership behaviour of the school principal, (ii) organizational climate of the school, (iii) teachers' morale, (iv) change-proneness of the school principal, (v) change-proneness of the school teachers.

The sample consisted of 413 teachers, 293 parents, 16 district education officers and 55 principals of a sample of 55 schools selected on a purposive, stratified basis. The tools consisted of an Adaptability Scale constructed by the investigator, Change-Proneness Inventory developed by Mukhopadhyay, Leadership Behaviour Description Questionnaire Form XII, Organizational Climate Description Questionnaire developed by Halpin and Croft and modified by Sharma, Teacher Morale Inventory of Dekhtawala and interview schedules. Descriptive statistics and chi-square test were used for the analysis of data.

The major findings of the study were: (i) Leadership behaviour, the school climate, teachers' morale and change-proneness of teachers and principals did not significantly influence the school adaptability. (ii) The District Education Officer's role was seriously limited in the kind and amount of help he could render to schools. (iii) The District Education Officers perceived a tremendous scope for change and improvement in the schools. (iv) The various levels at which barriers to change existed were administration, school heads, teachers and, to some extent, even the community. (v) The attitudes of the principals and the teachers indicated apathy to change and improvement. (vi) Additional barriers to change as identified in the study were inadequate physical and temporal facilities, school personnel and programmes which were out of tune with the needs and requirements of the community and geographical and developmental conditions and cultural mores like community's resistance to change.

- 1253. BALASUBRAMANIAM, P.S.,** *A Critical Study of the Strategies Adopted for the Installation of Innovations in High Schools in Vellore (Tamil Nadu)*, Ph.D. Edu., MSU, 1979

The broad aims of the study were: (i) to survey the extent of the strategies that were adopted to install innovations in high schools, (ii) to appraise these strategies with reference to the theoretical strategy models conceptualized by Havelock, and (iii) to evolve a strategy

model suitable to conditions obtaining in the schools of Tamil Nadu. The specific objectives were to find out which strategies proved successful in the installation of innovations and to identify the strategies adopted by highly innovative schools.

The sample comprised 164 schools of Vellore district. These schools were full secondary schools of at least five years' standing. All trained teachers of these high schools were included in the sample. In all, 1007 graduate trained teachers responded. Research tools consisted of the Innovative Scale, A Strategy Scale—both constructed by the researcher, and a case schedule. Statistical techniques used included descriptive statistics, t-test, point-biserial correlation, multiple correlation, and Wherry-Doolittle test.

The main findings of the study were: (i) Municipal schools lagged behind aided and government schools in innovativeness. (ii) Innovations in the areas of curriculum, teaching aids, evaluation and student-centred teaching were more popular than innovations in other areas. (iii) Two clusters of innovations were identified through cluster analysis. One cluster consisted of student-centred innovations and the other of teacher-centred innovations. (iv) The Research—Development—Diffusion and Social Interaction strategies had significantly a wider application than Problem-solving and Linkage strategies. (v) In highly adaptive schools, all the four strategies operated at a high level than in low adaptive schools. (vi) All the four strategies correlated significantly with school innovativeness. (vii) Social Interaction and Linkage strategies significantly correlated at a higher level than the other strategies. (viii) Social Interaction strategy worked more successfully in the case of innovations in the areas of administration, role and role perception, curriculum, methodology and evaluation. Problem-solving strategy was associated with Linkage category of innovations. Linkage strategy was linked with role and role perception and curriculum innovations. (ix) The predictors of school innovativeness were: (a) consultancy role of change agent, (b) coordination of research, development and evaluation, (c) evaluation at each step, (d) informal leadership, (e) simulation of the resource system by the user, (f) reciprocal feedback, and (g) collaborative relationship between the diverse groups of resource systems.

- 1254. BANERJEE, N.P., and MAJUMDAR, H.P.,** *Shikshaniketan — a Life-centred School*, 1981 (NCERT-financed)

The objective of the study was to identify the inherent

working model of the institution and to explore its effectiveness with regard to universalization of primary education, its qualitative improvement and impact on the communities in respect of certain aspects of social change. A follow-up of students was also attempted to see whether they had been able to act as potential change agents.

Besides tracing the origin and development of the institution, in a historical perspective, an attempt was made to critically examine the process of curriculum development with special reference to its productive work component along with community life activities and innovated practices with tools and procedures specially designed for the purpose. A general profile of the institution, its development, organizational and operational styles, curricular inputs and the like were also brought out. The possibility of adopting the working model of Shikshaniketan in similar situations as a strategy of universalization of primary education was also examined.

The study revealed that, initially, the institution had started work in the field of primary education with a view to improving homes, using child education as an instrument of change. Subsequently, the emphasis shifted to adult education with the intent to eradicate adult illiteracy and achieve general social transformation of rural communities. Finally, it concentrated on the integrated rural development schemes as well as on basic schools.

1255. BARUAH, N.K., *A Century of Primary Education in Assam (1874-1974)*, Ph.D. Arts, Gau. U., 1981

The major objectives of the study were: (i) to trace and reconstruct the historical development of primary education in the State of Assam, (ii) to analyse the factors which had influenced the development and progress of primary education during the different stages of the period, (iii) to examine the problems faced in different periods/stages and regions of the State for the extension of primary education and the measures taken to overcome the same, (iv) to assess the part played by different agencies, such as the government, local bodies, private enterprises including mission bodies, etc., for the spread of primary education in the State, (v) to evaluate the overall impact of primary education at different periods, (vi) to draw lessons for guidance in the future on the basis of the past one hundred years, and (vii) to suggest measures for improvement of primary education in the State in the future.

The study was based entirely on original sources avail-

able in 'Assam Records'. The documented sources were supplemented by personal discussions carried out with the officials of the education department in the Assam Secretariat, the Directorate of Public Instruction, etc., for linking some gaps in information for the post-Independence period. A limited field investigation was carried out to study the problems at the grassroot level and condition of the primary schools of the State. In all, ten representative school inspection (S.I.) circles were selected and four schools from each of the S.I. circles in the plain areas, three schools from each of the two S.I. circles in the hill areas and eleven schools from the only S.I. circle in the urban area were selected at random for detailed investigation. Information was also collected from each of the S.I.s of the selected circles, which were supplemented by official records and information gathered from 120 teachers. Investigation regarding quality of accommodation, school compound, amenities available in the school, etc., was carried out in forty-five selected schools. To investigate the extent of attendance of the children in the school, reasons for wastage and stagnation, etc., two villages — one school village and another a neighbouring village without a school—from each S.I. circle were selected. In all, eighteen villages and four most educationally backward wards in the urban area were selected. From these villages and wards, 500 householders were selected from north-eastern corner of the selected villages and wards. Questionnaires and schedules were used. Discussions were also held with the D.I.s, S.I.s, teachers and householders.

Elaborate findings are discussed with reference to the major objectives. The findings enlist the major stages of development of primary education mainly before and after Independence. The major problems facing the educational system because of a large population, tribal dialects, inaccessibility because of hilly terrain and other problems are discussed.

1256. BHAGIA, N.M., *A Study of the Working of UNESCO Clubs in India*, NIEPA, New Delhi, 1979

An attempt was made to review the activities of UNESCO Clubs in India. The specific objectives of the study were: (i) to examine certain situational, organizational and financial aspects of the clubs, (ii) to examine the various activities of the clubs, (iii) to determine the extent to which the clubs achieve the objectives of UNESCO, (iv) to know the problems and difficulties

being experienced by them and their suggestions to solve them, and (v) to explore the possibilities for establishing a single voluntary body at the apex level for coordinating the activities of all the UNESCO clubs in the country.

The study proceeded in three phases. The first phase consisted of preparation and administration of a questionnaire to collect information regarding situational, organizational and financial aspects, attainment of objectives, their difficulties and views about establishing a single voluntary national coordinating body. In the second phase interviews were held with forty clubs, randomly selected by cluster sampling technique. In the third phase more intensive interviews were held with the leaders of federations and organizations of the club.

The major findings of the study were: (i) Most of the clubs (thirty-eight out of thirty-nine) were located in places with a population of more than a lakh only in urban areas. (ii) Most of the clubs functioned within the precincts of academic institutions or libraries. (iii) Approximately 75 per cent of them functioned in rent-free buildings. (iv) The clubs located in the libraries usually did not have any executive body; most of them did not have any written constitution, and more than 50 per cent did not maintain even minimum records. (v) Membership of the clubs showed an increasing trend which was not substantial. (vi) The most important sources of income were donations and membership fees. (vii) There was a gradual fall in the income of the clubs but some increase in their income was observed in the last two years. (viii) Celebration of the UN Day, Human Rights Day and organization of lectures and seminars were popular activities of the clubs. (ix) The objectives of promoting international understanding and harmonious relations among the people, gathering of information concerning national and world problems and creating climate favourable for world peace were achieved satisfactorily whereas the training of members and studying the aspects of Indian culture, economy, creating awareness about diseases and extending assistance were not satisfactorily achieved. (x) Lack of finance, space, furniture, staff, trained personnel and literature in regional languages were some of the problems which hampered the progress of the clubs. (xi) Maximum suggestions were provided for a coordinating body at the national level.

- 1257.** BHARGAVA, Y.N., *A Comparative Study of Job Motivation of Various Professional Groups*, Ph.D. Psy., AMU, 1979

The aim of the study was to compare the job motivation of various professional groups.

The sample consisted of 340 subjects comprising 110 police personnel, 90 advocates, 80 doctors, and 60 university teachers. Systematic sampling was employed in drawing the sample. Job motivation scale developed by the investigator was used for measuring job motivation, and job satisfaction was measured by using S-D Scale (Pestonjee and Akhtar). The data were analysed by employing Duncan's Range test and Kruskal-Wallis one-way analysis of variance by ranks.

The findings of the study were: (i) The various groups hardly differed from each other on content as well as context factors. The results obtained through unspecified ranking showed a similar trend. These findings were reaffirmed when satisfaction dimension was also taken into consideration. (ii) No differences between the groups on various factors were observed except that the police personnel differed from the advocates on social interactions with co-workers. Again the police personnel differed from the doctors and the advocates on supervision and the police personnel from the doctors on health. (iii) The police personnel preferred achievement, growth, status, co-workers, supervision and social interaction with subordinates. (iv) The teachers aspired for achievement, growth, social status and security. (v) The advocates endorsed achievement and social status. (vi) The doctors opted for achievement, social status and work itself. (vii) Achievement, growth, and social status were equally motivating to all the groups under study. (viii) Slight difference on individual factors were attributed to work-role variables.

- 1258.** BOEL, W., *An Analysis of the Kerala Education Act of 1958 and the Related Rules and Regulations*, Ph.D. Edu., Ker. U., 1980

The major objectives of the study were: (i) to make a synoptic appraisal of the social and political trends which led to the passing of the Kerala Education Act of 1958, (ii) to classify the different sections or clauses of the Act into meaningful areas of educational practice, (iii) to make a general appraisal of the major sections of the Kerala Education Rules of 1959, and (iv) to assess the legal validity of different sections of the Education Act of 1958, and the Kerala Education Rules of 1959.

The study used the descriptive method. Data were collected from primary documents and secondary sources. The interpretation of the clauses was done with respect to well-defined criteria.

The major findings of the study were: (i) The trends which led to the passing of the Kerala Education Act of 1958 were that the leftist government had a political in-

tention of controlling private schools, the government wanted to adopt a policy of full-scale nationalization of private schools, there was widespread discontent among private school teachers regarding service conditions, promotion practices, etc., there were widespread allegations of corruption and nepotism by the managers of private schools, private school managers circumvented the departmental rules and many of the constitutional directives and the implied social objectives required that the government should have a strong control over education. (ii) The different sections of the act could be functionally classified into four areas, namely, sections dealing with legal preliminaries of the Act, sections relating to the establishment and management of private schools, sections defining the service conditions of teachers in private schools and sections relating to the decentralization of educational administration. (iii) The Kerala Education Rules were comprehensive in coverage. The attempt to standardize the operation of education was visible in all the sections and rules of the legislations under study. The regulations came into conflict with the basic motives of the group who controlled the private sector. (iv) Many of the sections in the legislations, despite their pretensions regarding decentralization of educational administration, only showed that there was a pronounced shift towards centralization. The governmental authorities were actually invested with greater powers and control over private schools. The idea of individual initiative, basic to democratic educational philosophy, was obscured by the legal framework of state control.

- *1259. BORTHAKUR, S., *A Critical Study of the Factors Influencing Teacher Manpower Requirements and Developing a Procedure for Forecasting Manpower Need*, Ph.D. Edu., Del. U., 1981

The objectives of the study were: (i) to identify the factors influencing the requirement of graduate teachers in secondary schools for Grades VI to X through comparatively assessing the extent of requirements in terms of different categories of graduate teachers relative to pupils for the period 1971 to 1975, and (ii) to probe into the past trends of requirements for graduate teachers for developing a procedure for forecasting the teacher requirements by 1980 and 1985 through the computed categories of teachers relative to pupils from 1971 to 1975.

The factors identified as affecting teacher manpower requirements were enrolment of pupils, nature of the

school, location of the school, management of the school, subjects in the school and teacher replacement in the school. The study was cross-sectional survey type involving causal-comparative longitudinal trend analysis for the specified period of time. The school being the sampling unit, a stratified random sample of 188 schools was selected from eleven districts of Haryana. The questionnaire prepared for the study was filled in by the heads of the selected schools. The Wilcoxon's Matched Pairs Signed-Rank Test, t-test, F-test and analysis of variance were applied.

The findings of the study were: (i) There were significant differences in the teacher-pupil ratio over the period 1971-75. (ii) The ratio of subject-wise teachers for social studies and English, science and mathematics to the total number of teachers changed with passage of time. (iii) The requirement of girls' schools for women teachers was greater than of boys' and coeducational schools. (iv) The rate of replacement of women teachers due to death, retirement, resignation and leave was not the same as that for male teachers. (v) The teacher-pupil ratio varied over time with the type of management of the school. (vi) There was significant difference in the teacher-pupil ratio between rural and urban schools. (vii) For 10 per cent of the sample, the forecasts of total graduate teacher requirement for the years 1980 and 1985 were 1,473 and 1,616.

1260. BOSE, P.K., BANERJEE, P.K. and MUKHERJEE, S.P., *Facilities Available to Students and Teachers for Study and Work in Higher Secondary Schools of West Bengal: an Educational Survey*, Dept. of Stat., Cal. U., 1962

The major objective of the survey was to give a brief account of facilities for study and work that were made available to students and teachers in the higher secondary schools in four districts of West Bengal — Howrah, Hooghly, Nadia and Murshidabad.

The stratified random sampling technique, with proportional allocation, was adopted with a little modification. The numbers of upgraded schools covered were 25, 27, 18 and 17 for boys and 9, 13, 7 and 4 for girls in Howrah, Hooghly, Nadia and Murshidabad districts, respectively. A questionnaire was used. Fieldwork was completed in three stages.

The survey revealed that most of the facilities for study and work that were made available to students and teachers were inadequate and unsatisfactory. Facilities other than those for teaching were also not sufficient.

The findings indicated ample scope for improvement in the state of affairs prevailing in higher secondary schools.

- 1261.** BOSE, P.K. and MUKHERJEE, S.P., *Wastage and Stagnation in Collegiate Education*, Dept. of Stat., Cal. U., 1971

The main aim of the study was to assess the extent of failures in B.A. and B.Sc. Parts I and II examinations in Calcutta and mofussil colleges. To make a comparison over time possible, percentages of pass and honours candidates failing in Part I and Part II examinations in 1965 and 1968 were calculated and examined.

The findings of the study were: (i) Wastage and stagnation in collegiate education was rather high. (ii) The main reasons for this evil were: (a) lack of physical facilities, (b) dearth of competent teachers, and (c) inadequate attention to higher education in national plans and policies. (iii) The problem was more acute in the case of big affiliating and federal universities.

- 1262.** BOSE, P.K., BANERJEE, P.R. and MUKHERJEE, S.P., *Case Study of Seven Big Colleges in Calcutta: Their Academic, Administrative and Financial Affairs*, Dept. of Stat., Cal. U., 1973

The main aim of the study was to examine academic and financial aspects as well as administrative arrangements of the seven big colleges in Calcutta since these and financial issues were interrelated.

Academic, administrative and financial aspects of seven big colleges in Calcutta, viz., Asutosh, Bangabasi, Charuchandra, City, Maharaja Manindra Chandra, Surendranath, and Vidyasagar College, which came under the phased reduction scheme in different years following 1959-60 were examined. Six of these colleges were managed by trusts or societies and the remaining one was a privately managed institution.

The study revealed that the colleges spent more than their income on maintenance of teaching and non-teaching staff alone; the colleges were obliged to spend very little on maintenance of building, furniture, library and laboratories. Recurring expenses on stores, consumables and specimens in laboratories were also inadequate. Capital grants from government for development of buildings, library and laboratories were major sources from which development expenses were usually incur-

red. The government's contributions towards maintenance and development expenses in these seven big colleges were quite considerable. Percentage contribution by the government towards total salary costs of teachers, including all allowances, exceeded 50 per cent in Bangabasi, City and Surendranath Colleges and was slightly less in Asutosh, Charuchandra and Vidyasagar Colleges. Corresponding figures for non-teaching staff varied around thirty. The colleges had outstanding liabilities as well as unpaid loans. In a few colleges, the staff benevolent fund, the sports ground fund, etc., had been created out of revenue income. Running expenses on science laboratory in some colleges were not adequate. Purchase of library books from the college fund was inadequate. Average number of lectures delivered by a teacher in a particular subject per teaching day was quite small — in some cases less than one. The problem of coordination between the colleges for use and maintenance of common facilities requiring usually common services of several employees was felt. The basic pay of the non-teaching employees in affiliated non-government colleges was inadequate. The college teachers should get provident fund benefits on the entire basic pay as admissible in the new integrated scale of pay and not merely on the college share of such pay.

- 1263.** BOSE, S.K., *Ashram Schools in Bihar*, Society for Studies in Political Economy, New Delhi, 1982 (NIEPA-financed)

The objectives of the study were: (i) to examine the place of Ashram schools as a subsystem in the total school system, (ii) to assess the extent to which this segment had been able to fulfil the educational needs of the tribal population, (iii) to find out the effectiveness with which these schools had operated in achieving their objectives, and (iv) to analyse the cost effectiveness of these schools.

The sample was selected from the list of Ashram schools in three districts with highest tribal population, namely, Ranchi, Singhbhum and Santhal Parganas (Bihar). However, a non-Ashram school located at Amrapura in the Santhal Parganas was taken in the sample as no Ashram school could be found functioning in the district.

The main findings of the study were: (i) The impact of Ashram schools in the total system of education and even in the education of tribal children was negligible because of the very small size of the Ashram school subsystem. Thus, quantitatively these schools had failed to

fulfil the educational needs of the total population. This was not only because of quantitative factor, but because of the qualitative factor, in terms of curriculum, teaching methods and other physical facilities available. (ii) Ashram schools were indistinguishable from the general run of elementary schools in Bihar. The distinctive characteristic, if any, was that the students were residents in the schools and yet they were not the sole examples of residential schools in Bihar. (iii) The objectives for which they were established had remained largely unachieved. (iv) The cost effectiveness of these schools was not different from the others, in so far as the dropout rates which was the biggest problem in elementary education, was higher in the Ashram schools studied than in the non-Ashram basic school that was also studied. (v) The loose manner in which the accounts were kept, supervised and controlled at all the three levels involved, namely, the school itself, the office of the District Education Officer, and the Education Department of the State Government, did not indicate that anyone was bothered about the bonafides and effectiveness of the cost incurred. (vi) The higher cost of the Ashram schools was not due to any educational innovation, but was due to the fact that the cost of board and lodging of the pupils in the Ashram schools was borne by the State.

1264. BUREAU OF ECONOMICS AND STATISTICS, *Evaluation Study on Wastages at Primary School Level in Andhra Pradesh*, Hyderabad, 1970 (Planning Department of Andhra Pradesh-financed)

The objectives of the study were: (i) to ascertain the reasons for wastage at the primary school level in Andhra Pradesh, and (ii) to find out the reasons for low enrolment of girls in Classes VI to VIII.

A sample of fifteen primary schools from Ganavaram block in Krishna district, Gooty block in Anantpur district and Husnabad block in Karimnagar district was selected. Twenty per cent of the students who discontinued their studies at various stages of primary education were surveyed. The schools were selected by simple random sampling whereas the students were selected by systematic sampling with a random start. For taking the sample of students who discontinued their studies, all the students who discontinued the studies at various stages of primary education during the years 1963-64 to 1967-68 in the selected schools were considered. Two schedules were designed for the study of wastage at the primary school level, viz., the school

schedule and the pupil schedule. The school schedule was canvassed in respect of the selected schools in each block. In school schedule, information was collected on the enrolment in different standards in the school, students who discontinued their studies at various stages of the primary education, etc. The pupil schedule was canvassed over the selected pupils who discontinued their studies at various stages of primary education. In pupil schedule, information was collected on socio-economic background of the pupils and the reasons for discontinuance. Mean and percentages were employed to process the data.

The important findings of the study were: (i) Enrolment in the primary schools was not consistent with the goal of achieving cent per cent enrolment of children on the age-group 6 to 11 in a short time. (ii) Enrolment of girls in the primary schools was the lowest in the Telangana region followed by Rayalaseema. (iii) The percentage of drop-outs in different standards was perceptibly larger in the case of girls than of boys. (iv) The major reasons for discontinuance of studies were either household duties or financial difficulties. (v) The largest percentage of drop-outs due to household duties was noticed in Standard V while that due to financial difficulties in Standard I. (vi) Relatively more girls discontinued their studies because of household duties than boys. (vii) Relatively more boys discontinued their studies due to financial reasons than girls. (viii) The drop-outs were more numerous in the lower income groups. (ix) The wastage as well as lower enrolment of girls in Standards VI to VIII were due to two primary reasons, viz., the economic backwardness of the families and the social backwardness of the area.

1265. CARE-INDIA, *School Feeding in Karnataka: Impact on Enrolment and Attendance*, CARE, Karnataka, 1977

The study was carried out as a part of periodic evaluation undertaken by CARE to refine its planning and programming. The specific objectives of the study were: (i) to determine the difference in enrolment, attendance, and attendance vs. enrolment between participating and non-participating schools in the Mid-Day Meal (MDM) programme, and (ii) to assess the role of actual efficiency or regularity of food distribution in the schools in relation to attendance.

An alphabetical list of all the blocks in the twenty districts of Karnataka was used as the sampling frame. Using a circular systematic random method, a total of

thirty-six blocks were selected. In all, data on 4,440 schools were collected, 1,748 participating in the MDM programme and 2,692 not in the programme. For the study of Class I attendance and enrolment, a subsample of 10 per cent of the MDM schools (150) and an equal number of non-MDM schools was selected. Data regarding attendance and enrolment were obtained from the office of the Assistant Education Officer. 'A Care Block Inventory Form' was used for determining the programme levels of commodity supply efficiency. Month-wise weighted mean for enrolment and attendance and variance for enrolment, attendance and per cent attendance were computed for comparing MDM and non-MDM schools. The blocks were ranked with respect to efficiency and divided into quartiles. The uppermost quartile blocks were termed 'high efficiency' blocks and the lowest 'low efficiency' ones.

The major findings and conclusions of the study were: (i) Difference between the number of children enrolled in MDM and non-MDM schools was statistically significant at 0.05 level. Variance in enrolment for the MDM schools was significantly lower than that in the non-MDM schools, indicating that the feeding programme reduced variation in enrolment figures. (ii) Difference between mean attendance figures from MDM and non-MDM schools was not significant. However, variance in the attendance figures for the MDM schools was significantly lower than that for the non-MDM schools, suggesting that food acted as an incentive for attracting children to attend school on a regular basis. (iii) Mean percentage of attendance against average enrolment was significantly higher in the MDM schools. Also, variance of per cent attendance in MDM schools was significantly lower than that in non-MDM schools, implying that the feeding programme, besides decreasing absenteeism, produced stability in the number of children actually attending the school. (iv) In high food supply efficiency blocks, percentage of attendance in MDM and non-MDM schools differed significantly. On an average, MDM schools drew 6 per cent additional children. The observed difference was still higher for Class I, amounting to 11 per cent. In low efficiency blocks, even though the differences were not significant, MDM schools could draw 4 per cent more children than the non-MDM schools.

1266. CHANDRASEKARAN, K.N., *Nutritional Studies on Children of the School-going Age*, Ph.D. Home Science, MSU, 1968

The objectives of the study were: (i) to assess the phys-

ical, clinical and biochemical status of boys aged 7-12 belonging to different socio-economic status, and (ii) to examine the extent to which the nutritional status of the under-nourished children could be improved by school lunch.

The groups studied for comparative purposes included sixty subjects in Raipura, a very backward village, thirty subjects from Bhaili, a semi-urbanized and more prosperous village, and twenty-one subjects from the upper class in Baroda. Out of these, forty-four students were given a balanced school lunch in Raipura for a period of five months. Data were collected with respect to effects on their physical, clinical, biochemical and psychological status.

Some of the major findings of the study were: (i) The diet of the students from Raipura was deficient in nutrients such as protein, calcium, riboflavin and vitamin A. (ii) The diet of upper class boys seemed reasonably adequate. The diet of the subjects in Bhaili was better than that of the boys in Raipura. (iii) The difference in dietary intake was reflected in physical stature as measured by height, weight and weight per unit height. (iv) The composition of blood, serum and urine also showed superior biochemical status of the upper class boys as compared to those in Raipura and Bhaili. (v) Supplementation with a school lunch for a period of five months did not show any appreciable improvement in height or weight in the fed children as compared to the non-fed but there was significant improvement in clinical and biochemical status.

- *1267. CHANDURKAR, D.P., *Kriyatmak anusandhan dwara prathamik vidyalayon kisamasyaon ka nirakaran (Solution of Problems of Primary Schools by Action Research)*, Ph.D. Edu., Nag. U., 1981

Reported in Hindi, this study aimed at trying to infuse an experimental attitude in primary school teachers, to create an objective awareness to the problems and to undertake action research in order to assess its effectiveness in solution of problems and elevating the standard of primary education.

Sixteen primary schools of Nagpur district were selected on the basis of purposive sampling. These included boys' and girls' schools, rural and urban schools and institutions under different managements. Control and experimental groups, consisting of eight schools each, were made from the sample for experimentation. After introductory survey and personal contacts, fifteen supervisors and inspectors, sixteen headmasters and

fifty teachers were oriented in the details of the experiments. The problems ultimately selected for experimentation were divided into three categories, viz., 1. Problems of instruction: developing ability of observation (in Class IV), developing proper habits of transcription (in Class III), the problem of homework and self-study (in Class III) and the problem of indicating proper signs in writing at the end of sentences (in Class IV). 2. Problems of administration: educational aids, their improvement and use, maintenance and management of school records, the problem of difficult vocabulary (in Class II), and the problem of proper writing of poems (in Class III). 3. Problems of organization: personal cleanliness of students (in Class II), class decoration, problem of pronunciation (in Class II) and the problem of reading time (in Class III). The control and experimental groups of schools were equated on the variables of management, rural and urban institutions, boys' and girls' schools, curriculum, teacher, level and age of students. Each group was tested for pre-and post-experiment achievement. The concerned teachers and other personnel were assigned experimental treatment, which was carried on for four months for instructional purposes and for nearly six months for organizational and administrative aspects. The experiment was conducted on 30 classes and 2,142 students of the experimental group whereas the 25 classes and 1,985 students of the control group followed their routine course. The instructional aids, tests and schedules were prepared by the researcher and were used by the relevant personnel for instruction and scoring. Raw scores were converted into percentages, and t-values and coefficients of correlation were calculated for purposes of comparison and establishing relationships.

Analysis of the results showed that the treatment (i) increased the average achievement by 30.5 per cent of the scores, (ii) increased the lowest achievement score from 3 per cent to 47.7 per cent, (iii) solved 55 per cent of the problems of primary schools, (iv) improved the homogeneity of students in respect of their achievement and could produce significant gain in average achievement of pupils. All the schools were found to be facing various problems and as a result of the experimentation it was concluded that action research could solve not only academic problems but also organizational and administrative problems.

1268. CHAUDHARY, G.S., *Assessment of Basic Physical Fitness of Haryana State College Boys of Age Group 15+ to 17+*, Ph.D. Phy. Edu., Kur. U., 1979

The objectives of the study were: (i) to measure the present level of physical fitness of college boys of Haryana, (ii) to establish norms for physical fitness of the said group, (iii) to compare the standard of physical fitness of urban and rural boys keeping in view their socio-economic status, and (iv) to examine the interactional effect of socio-economic status and place of habitation on the physical fitness.

The sample consisted of 450 urban and 450 rural boys selected randomly from the various colleges of Haryana. The students were administered the Harvard Step Test to judge the endurance, zig-zag run for speed and agility, jump and reach for speed, shotput to measure strength and power, sit-ups to determine flexibility and strength of the spinal cord. The Socio-Economic Status Questionnaire (Kapur and Kochhar) was also administered. On the basis of the data collected percentile norms were established for all the elements of physical fitness for urban and rural boys of Haryana, separately. The data were further analysed by 2×3 analysis of variance to see the interactional effect of area and SES.

The findings of the study were: (i) In the case of speed and agility the curve was positively skewed in the case of the urban as well as the rural boys. (ii) The scores for speed, strength and power indicated a negative curve skewed both in the case of the urban and the rural boys. (iii) The rural boys had greater speed and agility. (iv) The socio-economic status influenced speed and agility. (v) The low SES rural students had highest scores on strength and power, whereas the scores of the high SES urban students were lowest. (vi) The urban boys had greater strength and power than the rural boys, but the middle SES boys had an edge over the high and the low SES boys. (vii) The rural students were better in flexibility than the urban students. (viii) The interactional effect of area and socio-economic status suggested that the low SES rural students were better than the middle SES urban boys in flexibility and endurance.

- *1269. DABHOLKAR, D.A. and GADGIL, A.V., *Integration of Overall and Educational Plans at the District Level*, Indian Institute of Education, Pune, 1982

The objectives of the enquiry were: (i) to study formulation of overall plans at the district level, (ii) to study formulation of educational plans at the district level, (iii) to study four districts and study them in depth, (iv) to study the process of integration of overall plans with educational plans at the district level, (v) to locate objec-

tives of integration of general and educational plans at the district level, (vi) to define the potential and limits of such integration, and (vii) to see if methods and techniques of evaluation planning have evolved in sufficient detail. By and large, the study was based on the data collected for the period 1960-61 to 1975-76 and in some cases a few years thereafter; information on overall development of districts was collected from District Statistical Officers, District Planning Officers, Zilla Parishads, Planning Department of Government of Maharashtra and the Maharashtra Economic Development Council, Bombay. Information about growth and development of education was available from the Education Officers of the district, Statistical Officer in the Directorate of Education and the SSC Board, Pune. Information about 14 areas, namely, area and population, agriculture and irrigation, soil conservation, agricultural implements, livestock, factory employment, electricity, cooperation/societies, education, health, transport and communication, community development, local-self government and miscellaneous items not covered in the thirteen areas, was collected. Four districts on the basis of information available in the above-mentioned areas and (a) high in economic and educational development, (b) low in both the developments and (c) high in one but low in the other area of development were selected. These districts were Pune, Bhil, Wardha and Ratnagiri.

The methodology used in the project consisted of (a) collection of information of overall and educational development, (b) selection and detailed study of four districts, (c) study of Zilla Parishads and Panchayat Samities from the point of planning developmental activities, (d) study of the District Planning and Development Councils, and (e) interviews of officials and non-officials concerned with the district planning. The following micro-studies were undertaken for collecting in-depth information: (i) school-leavers and job opportunities available, (ii) registration of job-seekers at one of the Employment Exchanges (Pune) and the number of job-seekers coming from outside Pune district and Maharashtra, (iii) Lead Bank scheme and its contribution by way of loans for developmental schemes for the district.

The findings of the study were: (i) There had hardly been any integration of overall plans with educational plans at the district level. (ii) At the primary and the lower secondary levels, the educational effort should be directed towards improving the quality of education. At higher levels, education would have to be geared to job potential and job requirements. (iii) District is a viable

unit for educational planning. Syllabi have to be reorganized so as to make these more relevant to the local environment. There has to be adequate provision for instruction in technical skills relevant to the district. (iv) There was no large-scale inter-district movement of people for education. Inter-district migration for employment followed the normal pulls of economic opportunities as realized or even visualized. (v) The data available were not strong enough for any detailed planning attempting integration of overall plans at the district or the block levels. (vi) Expertise required for planning was not readily available at the local level. (vii) There was no decentralization of administration required for an integrated plan to be effective. (viii) The financial pattern as prevailing at present — Central funds, State funds, Z.P. funds, foreign funds, bank loans, etc. — should continue. (ix) There was no conflict between academic control by universities and the need of local skill developments through college-school complex the universities could participate in the development of district plans. Universities should make provision for formal education for those who have vocational training.

1270. DAHAKE, W.G., *A Study of Inspection and Supervision Practices in relation to the Changing Educational System*, Ph.D. Edu., Nag. U., 1979

The major objectives of the investigation were to find out the effects of change on participative supervision, perceptions and workload of teachers and supervisors, planning of supervision, methods of teaching, materials and equipment in schools and the helpfulness of inspection and supervision.

The sample consisted of 500 teachers, 102 heads of secondary schools and 30 inspectors of schools from four districts of Vidarbha region. Data were collected through mailed questionnaires addressed to teachers, heads and inspectors. The chi-square test was employed to assess the difference between observed and expected frequencies.

The major findings of the investigation were: (i) There was no effective change in the participative practice of supervision with the introduction of the new syllabus. (ii) In general, no change was evident in the perceptions of supervisors and teachers except more stress being laid on daily lesson notes and unit plans. (iii) The workload of inspectors had increased but that of the heads was not affected adversely due to the change. (iv) There was no major change in outlook of supervisors and the planning of inspection programmes. (v) The inclusion of subjects

like compulsory science, new mathematics, work experience, social science was profitable. (vi) The change in educational system had not changed the concepts of inspectors except a change in the topics and items of discussion during inspection. (vii) Teachers were generally in favour of inspection by a panel of experts. (viii) The new educational system had not increased the office work of the heads of schools affecting their supervision and teaching work. (ix) The change in the syllabus had not generally affected participative supervision, the workload, the outlook of supervisors, planning of inspection and the concept of inspection. (x) The curriculum appeared to have fulfilled the objectives of adolescent and democratic society. (xi) Several teachers followed new methods in teaching and inspection of schools served helpful and useful purposes.

- *1271. DARJI, D.R. and DONGRE, P.K., *A Study of School Renewal with respect to Organizational Health*, Dept. of Edu. Adm., MSU, 1982 (MSU-financed)

The objectives of the study were: (i) to identify the leadership behaviour patterns of school principals of Baroda district and Baroda city, (ii) to identify the organizational climate types of the schools, (iii) to identify the nature of organizational health of the schools, and (iv) to look into the organizational health of the schools through the leadership behaviour patterns of principals and organizational climate of the schools.

The investigation was basically a survey type of study confined to the secondary schools of Baroda district. Necessary data were collected from twenty-five schools of Baroda city and twenty-five schools of Baroda district. The tools used in the study were the Leadership Behaviour Description Questionnaire developed by Halpin and Wines, the Organizational Climate Description Questionnaire of Halpin and Croft and the Organizational Health Description Questionnaire developed by the investigators.

The findings of the study were: (i) Among the schools studied, 44 per cent had principals manifesting HH pattern of leadership behaviour and 34 per cent had principals with LL pattern. (ii) Closed organizational climate was prevalent in 32 per cent schools, open climate in 18 per cent schools and autonomous climate in another 18 per cent schools. (iii) Open as well as closed climates were more in district schools than in city schools. (iv) The mean scores on various dimensions of organizational health ranged from 24 to 29. The highest scores

were on goal focus, cohesiveness, problem-solving adequacy, and the lowest scores were on communication adequacy and optimum power equalization. From organizational health point of view the picture was encouraging. (v) The teachers in district schools were more cohesive than those in the city schools. (vi) The schools with principals manifesting HL pattern of leadership behaviour were the best in goal focus, innovativeness and problem-solving adequacy. (vii) The schools with principals of HH pattern of leadership were the best in innovativeness. (viii) The schools having principals manifesting LH pattern of leadership were poorer than the other schools. (ix) As one moved from openness to closedness, the mean scores on almost all the dimensions of organizational health decreased. The autonomous schools were the highest on goal focus and resource utilization. (x) Communication adequacy was poor in the paternal and closed schools.

1272. DAVAR, N.S., *Management Education in the Indian Economy*, Ph.D. Bus. Adm., Poona U., 1977

The objectives of the enquiry were: (i) to study the facilities available in India in the field of management education, (ii) to assess their appropriateness in meeting the needs of India, and (iii) to indicate what measures could be taken to make educational facilities in the area of management more appropriate in terms of present and future needs of the country.

The enquiry was based on a survey of facilities for commerce education and business/management education in the Indian universities, management institutes, professional organizations like the Institute of Chartered Accountants, Institute of Cost and Work Accounts, National Productivity Council, Indian Merchants Chamber, companies and their own training colleges, management associations in different areas and at different levels, and so on. In addition to collecting information on the formal and non-formal education programmes by the above sources, data were collected from 109 business and industrial organizations in Bombay through a structured interview schedule to study the background of their managers, existing facilities for management training in and around their organizations and their utilization. Organizations selected were from private as well as public sector, large, medium and small industries which varied in their products. Documents related to university and institutional regulations, syllabi, course structures and requirements were collected and

surveyed.

The findings of the enquiry were mostly descriptive and consisted of description of the various management education programmes run by a variety of agencies. Management education as part of commerce courses in the colleges and universities was also described reproducing the actual syllabi. The general observations in this regard were that the rapid growth of industries in India had brought to the fore the need for management education. This had resulted in several types of programmes being offered. There were institutions offering two-year full-time management programmes. Part-time programmes were also offered leading to diplomas of universities and other academic institutions. In addition, there were short-term programmes offered by both academic institutions and management associations, productivity councils, professional associations and consultants. Many companies had their own well-organized internal training programmes. This plethora of management courses was often criticized. It was at times even suggested that the two-year postgraduate programmes of MBA offered by universities or the programme of Indian Institutes of Management were the only management courses worth mentioning. In addition to these, there were some observations regarding the background of the present managers, the management education they received, skills considered desirable for managers, the type of management training offered and encouraged by organizations, and the usefulness of these courses.

1273. DEKA, G., *Organization of Pre-primary Education in Assam*, Ph.D. Edu., Gau. U., 1982

The major aims of the study were: (i) to analyse the trend of development of pre-primary education in the State of Assam, (ii) to survey its organizational pattern both under public and private management, (iii) to find out if the pre-school education was organized in conformity with the accepted norms, and (iv) to suggest improvement on the basis of the findings of the study.

The study analysed the objectives, activities and the routine of the various types of pre-school institutions, viz., nursery schools, kindergartens, Montessori schools and balwadis. It followed historical method as well as empirical approach in collecting, analysing and interpreting the data. The recommendations of the Kothari Education Commission and the programme framed by the NCERT for early childhood education were taken as the basic frame of reference. The tool used was a ques-

tionnaire embracing the different aspects of pre-school education sent to all the institutions/organizations dealing with pre-school education in the Kamrup district of the State of Assam. This was followed by visits to certain institutions for gathering supplementary information. Formal interviews with some parents and follow-up with certain institutions were conducted to elicit authentic information.

The findings of the study were: (i) There did not exist a definite set of objectives for pre-school education. (ii) There was no clear policy or direction by the State Government in respect of pre-school institutions. (iii) A number of shortcomings, including (a) lack of coordination of activities by the pre-school institution, (b) shortage of competent, qualified and trained educational administrators, (c) absence of proper health care, (d) prevalence of uncongenial environmental conditions, (e) inadequate facilities for the training of personnel for pre-school education for long-term as well as short-term course, (f) high child-teacher ratio, and (g) near non-existence of children's books and teacher's manuals and other teaching aids especially in Assamese language, were revealed.

1274. DE REBELLO, D.M., *Formal Schooling and Personal Efficacy*, Directorate of School Education, Hyderabad, 1979 (ICSSR-financed)

The objectives of the study were: (i) to find out whether children became more efficacious grade by grade, (ii) to find out whether school children were more efficacious in personal life than children of the same age not in school, and (iii) to find out how children perceived their school environment. The principal objective of the study was to investigate the relationship between formal schooling and personal efficacy.

The sample consisted of 1,108 children drawn from forty-four high schools and junior colleges in Hyderabad district and the twin cities of Hyderabad and Secunderabad and 111 children out of school, of the same age and from the same geographical area. The sample was selected on the basis of the stratified random sampling technique. The research design of the study was cross-sectional. There were two groups — the experimental group comprised children randomly selected from three strata, metropolitan, urban and rural, and the control group consisted of out-of-school children and early school drop-outs. A questionnaire was constructed by the investigator to study the impact of formal schooling and personal efficacy. The tryout of the items was con-

ducted on 219 children in schools within the twin cities. The final version of the questionnaire consisted of twenty-six items. Frequency distribution and percentages were employed to analyse the data.

The study yielded the following findings: (i) Eighty-six per cent of the out-of-school children never got a newspaper at home. Seventy-six per cent of the children listened to radio once or twice a day. (ii) Only 9 per cent of the out-of-school children were interested in world news, just 16 per cent in Indian news and 16 per cent in hometown news. (iii) There was a steady increase in the percentage of children who were sure of their future plans between Grade VIII and Grade XI. (iv) The percentage of children who felt that they should try to overcome their problems increased gradually from Grade VII to Grade X. But there was a drop in Grades XI and XII. (v) Forty per cent of the out-of-school children were sure about their future plans and 18 per cent of them were waiting to see. On the other hand, 44 per cent of the schoolgoing children were sure of their future plans and 37 per cent were waiting to see. (vi) Eighty-three per cent of the out-of-school youth felt that they could do as well as others; only 44 per cent of the school children felt this way. (vii) Ninety-five per cent of the students found classwork quite enjoyable, 40 per cent found it dull. (viii) About 50 per cent of the children said that they had good time in school, while 17 per cent said that they seldom or never had a good time. (ix) There was a perceptible lack of freedom in the schools. Creative activities and innovative ideas of the students were not encouraged.

1275. DESAI, U.C., *University Vice-chancellor — Profile of Leadership*, Administrative Staff College of India, Hyderabad, 1979 (ICSSR-financed)

The objectives of the study were: (i) to acquire basic information on the social, economic and educational background of vice-chancellors, their parents and grandparents, (ii) to analyse career patterns of vice-chancellors, and (iii) to find out the attitudes of the vice-chancellors towards university and their own role.

The sample consisted of 112 vice-chancellors. Of these, forty-seven were present vice-chancellors and sixty-five former vice-chancellors. A questionnaire was designed to collect the necessary information. In a pilot study, a draft questionnaire was filled out by eight present vice-chancellors. On the basis of comments and suggestions, the instrument was modified and finalized. The final questionnaire was divided into five sections.

The first three sections were designed to collect information on personal background, education, and career. The fourth section included questions about the family background, and the fifth section contained questions, both structured and open-ended, concerning vice-chancellors' views on university matters. Percentage and frequency distribution were used to analyse the data.

The findings of the study were: (i) The typical vice-chancellor was a middle-aged married man. He was born and brought up in a town or a city. He came from a middle class family. He typically went to a government or private school. He rarely attended public or convent schools. He had at least a postgraduate degree. He mostly studied science or humanities. Predominantly, he was a high caste Hindu; and least likely a Muslim or a low caste Hindu. He was not very different from a typical higher civil servant (IAS, IFS) or an Indian manager. He was a little more likely than a higher civil servant to be from lower middle class and rural area. He was seen to have more higher education than the higher civil servant or manager, but the class obtained by him was found lower than that of the higher civil servant. (ii) The vice-chancellor was typically an academic bureaucrat. He typically started his career in a college or university as a teacher or researcher. He moved to administrative positions in government or academic set up as his career progressed. He typically occupied an academic administrative or government bureaucratic position just prior to becoming vice-chancellor. He rarely ever worked in a private enterprise. Typically, the only other career he ever considered was that of a government bureaucrat. He was dedicated to public service. He saw university organization as a combination of bureaucratic, judicial and consensus systems. His views on university organization and leadership were conventionally Indian. He valued consensus and impartiality above everything else. (iii) He was parochial. He did not see himself as a member of a small, well-knit national educational elite. He did not know much about the work or performance of other vice-chancellors. His information network was local. He viewed vice-chancellorship in grandiose but essentially empty clichés. A vice-chancellor, according to him, should be paragon of virtue and efficiency and everything good, and should know everything desirable. He saw unruly students, uncooperative, unmotivated and lazy faculty and staff, meddlesome and unsupportive politicians and bureaucrats as the major sources of difficulty for the university administration and the vice-chancellor. He typically considered quality and prestige of the university as the criteria for judging the success of others, but added growth and law and order on the cam-

pus when judging his own success.

- 1276.** DE SALES, M., *An Investigation into the Factors Affecting Classroom Climate in relation to Pupils' Development*, Ph.D. Edu., MSU, 1978

The main aim of the study was to investigate the factors affecting classroom climate in relation to pupils' development.

The sample of the study consisted of fifteen English-medium schools of Gujarat, Maharashtra and Goa, namely, ten schools of the Apostolic Carmel, three schools of the Convent of Jesus and Mary and two schools managed by private bodies. The tools used for the study were the classroom climate scale, the classroom trust schedule, students' adjustment scale, students' dependency scale, students' expectancy scale, sociometric scale, the socio-economic status scale, Flanders Interaction Analysis Category System, and academic and non-academic performance. The data was analysed by computing the means and standard deviations of the dependent and independent variables, applying t-test to each of the variables in order to investigate the significance of the difference of the means and computing the correlation matrix so as to study the inter-relationships between various variables.

The major findings of the study were: (i) Every classroom had a distinctive and unique climate. The mean climate scores of the thirty classrooms ranged from 104 to 166. (ii) Classrooms having the same climate scores had different authenticity, legitimacy and productivity scores. (iii) Pupils from a higher class climate were better adjusted than pupils from a lower class climate. (iv) More classroom trust was generated among pupils in classrooms having a high climate. (v) Pupils in high class climates were more independent than those in low climates. (vi) Even the less adjusted and more dependent pupils had a high expectancy level. (vii) The climate of a class did not depend on the pupils' trust, dependency and independency and their expectancy; no significant correlation was obtained between the mean climate score and these variables. (viii) The less direct the behaviour of teachers, the greater was the classroom climate. (ix) A classroom with a better climate had fewer stars and isolates and consequently a lower class integration index. (x) The better the social relationships in a class, the higher was the class climate. (xi) There was no significant correlation between the class climate and the academic performance of pupils but the higher the socio-economic status of the urban students, the poorer they

performed academically. (xii) Pupils who achieved higher academically, had lower expectations. (xiii) The socio-economic status of pupils did not affect the climate of a class. (xiv) Pupils from urban settings were less dependent than those from rural areas. (xv) Pupils from rural areas had less expectancies and those from urban areas had higher expectancies. The relationship between expectancy and SES was significant. (xvi) Teachers were significantly more indirect in their behaviour with rural children. (xvii) The class climate of the schools managed by the Apostolic Carmel did not differ significantly from that of the schools managed by the sisters of the Convent of Jesus and Mary but the climate prevailing in the classrooms of the schools managed by private agencies was noticeably lower than that prevailing in the classrooms of the schools managed by the Apostolic Carmel and the Convent of Jesus and Mary.

- 1277.** DEVAL, O.S., *Profile of Registrars — an Enquiry into Variables relating to Students of Correspondence Institutions at the Secondary Level*, Open School, Central Board for Secondary Education, New Delhi, 1982

The objectives of the study were: (i) to understand the distribution of students in correspondence institutions, and (ii) to find out their reactions towards various sub-systems of correspondence education like difficulty level of courses, study hours, self-containedness of courses, response sheets, fees, etc.

Of the 3,800 students registered in the four institutions, a stratified random sample of eight registrants from the institutions at Delhi, Bhopal and Ajmer was taken. Since the complete data could not be collected from the Board of Secondary Education, Orissa, it was omitted from the study. A questionnaire was prepared to collect information on students and their reactions to correspondence education. Information on students' age, sex, income, medium of examination, state-wise representation of Scheduled Castes and Scheduled Tribes was collected. Reactions to difficulty level of course, study hours, subjects studied, despatch, frequency and uniformity of lessons, usefulness of personal contact programme, response sheets, fees and personal correspondence were also collected through the questionnaire.

The findings of the study were: (i) More females registered in Delhi (25 per cent) and the least in Rajasthan (2.2 per cent). (ii) The percentage of Scheduled Caste and Scheduled Tribe registrants was very low. In fact,

there was no female Scheduled Tribe student in Delhi and no Scheduled Caste or Scheduled Tribe female registrants in Rajasthan. (iii) Most students in the three institutions were in the age range 18 to 21 years. (iv) A majority of the registrants were from low and medium income groups, only 5.3 per cent belonged to the income group of Rs.12,000 and above. (v) While in the Patrachar Vidyalaya, Delhi, the largest number was from within Delhi (89.4 per cent), representation from Haryana, Uttar Pradesh and Tamil Nadu was 2.2, 2.6 and 1.5 per cent, respectively. All registrants at the Rajasthan Board belonged to Rajasthan. At the Madhya Pradesh Board there were a few students from Madhya Pradesh. The largest number was from Haryana, followed by Rajasthan, Kerala and Punjab. (vi) While all the students at the Rajasthan Board opted to write in Hindi, as many as 32.5 per cent opted for English in Madhya Pradesh and 8 per cent in Delhi. (vii) Though most students considered the course to be of average difficulty, the Delhi course was considered more difficult, probably because it was an all-India level course. (viii) A majority of the students studied between thirteen to twenty-four hours per week with a maximum on Sundays. (ix) English was considered the most difficult subject by students of each of the institutions; the students of Madhya Pradesh and Rajasthan considered commerce the next most difficult subject, while the Delhi students thought it was mathematics. (x) A majority of the students did not consider the lessons to be comprehensive; this was more so for English lessons and less so for mathematics, economics and commerce. (xi) The personal contact programme was not attended by as many as 50 per cent students while 30 per cent who attended the programme, did not find it meaningful. (xii) Though the students appeared to be satisfied with the evaluation of response sheets, it was found that no corrections or comments were provided; besides, the Madhya Pradesh students were not satisfied with the timing of the return of response sheets. (xiii) Routine type of queries by the students were answered but a majority of unconventional questions were not replied to.

1278. D'SOUZA, P., *Field Instruction in Social Work Education*, Ph.D. Soc., TISS, Bombay, 1978

The major objective of the study was an exploration of the field instruction component in postgraduate education for social work in India. It identified the general characteristics of the schools of social work, the professional characteristics of the teaching faculty and the field

instructions; it sought to determine the general objectives that schools formulated for professional education, the theoretical base for field instruction and its place in the total curriculum. It further examined the pattern of field instruction and policies, programmes and procedures that the schools evolved for the different ingredients of field instruction. Finally, it examined the field instructors' implementation of the process of field instruction.

Fourteen out of twenty-eight schools of social work offering postgraduate education, situated in different parts of India, were selected on the basis of stratified random sampling techniques. Within each school, a further sample was drawn of the field instructors comprising both faculty and agency personnel. Information about the schools' field instruction programme was obtained at two levels, viz., first, the policies, programmes and procedures, as carried out by the schools and, secondly, the process of field instruction as implemented by the individual field instructors.

The major findings of the study were: (i) There was an urban bias in postgraduate social work education. (ii) Postgraduate social work education in India was provided within the university structure. (iii) In India, the term 'specialization' as applied to social work referred to specialization in a particular field of social welfare, and not specialization by method as prevalent in the U.S.A. (iv) The schools of social work were generally characterized by the small size of the academic faculty. (v) Of the faculty members in the schools of social work 83 per cent had professional training in social work. (vi) An examination of the curriculum of the schools of social work revealed several lacunae. (vii) A comparison of the time allotment of class and field instruction indicated they were almost similar, but the field instruction was not given adequate attention in terms of marks. (viii) Field instruction stressed more on evaluation than on providing a variety of learning experiences.

***1279.** DWIVEDI, M., *A Study of the Attitudes of Students, Parents and Teachers towards the Current System of Higher Education*, Ph.D. Edu., Gor. U., 1970

The investigation aimed to study the attitudes of students, parents and teachers towards the present system of higher education and also to study the differences in their attitudes. These differences were also studied on the basis of subject combination, educational status and sex and their interaction.

For the study, students of undergraduate classes of the affiliated colleges in the Varanasi region, their parents and their teachers were taken up. To obtain precise unbiased samples, the random sampling technique was adopted and the size of the sample was kept considerably large — students 500, parents 200 and teachers 300, with a total of 1,000. The attitude scale was constructed by the researcher. A questionnaire was also used for getting information about the present system of higher education.

In the present study, strongly favourable or strongly unfavourable attitudes were not shown by any group. Almost all the groups had shown a neutral attitude. The students were found to be quite higher on the attribute continuum than the parents and the teachers. The parents seemed to make an objective assessment of the system. The teachers were at the lowest point on the attitude continuum because their judgement was ever more objective than that of the parents. Amongst the students, no significant difference was found between the attitudes of arts students and science students, but quite a significant difference was observed between the attitudes of boys and girls. Among the different groups of parents non-matriculates were on the highest point on the attitude continuum. Among the teachers, the female arts teachers were highest on the attitude continuum. Next to them in order were male science teachers and male arts teachers.

***1280.** EKAMBARAM, B., *A Study of an Experiment in Creating an Effective School Climate*, Ph.D. Edu., SGU, 1980

The major objectives of the investigation were: (i) to change the teachers' verbal behaviour by proper training and regular feedback programme, (ii) to study the effectiveness of the inputs in bringing about changes in respect of organizational climate, leadership behaviour and teachers' morale, (iii) to study the effects of sustained changed behaviour on students' performance, and (iv) to study the effects of changed teachers' behaviour on variables such as pupils' academic motivation, classroom trust, adjustment, dependency, independency, initiative, activity level classroom integration level and classroom climate.

The study employed pretest-posttest experimental-control group design. The sample consisted of three groups of teachers (two experimental and one control). The experimental treatment consisted of intensive training with respect to FIACS (one group with feedback and

another without feedback), organizational climate, leadership behaviour and teachers' morale. Data were collected by using FIACS, Organizational Climate Description Questionnaire, Leadership Behaviour Description Questionnaire and Teacher Morale Inventory. The collected data were analysed using t-test.

The major findings of the investigation were: (i) As a result of teacher behaviour training and regular feedback, the teachers changed their behaviour in the experimental group. (ii) There was increase in the use of categories 8 and 9, which led to increase in pupils' talk in the experimental group. (iii) Pupils' academic motivation level was significant at 0.01 level in the experimental group. (iv) The classroom climate components such as productivity, legitimacy, authenticity and total classroom climate showed significant mean gain scores, with respect to experimental groups. (v) The increase was more in experimental group I than in experimental group II, which was the result of regular feedback given to them during the experimental period.

1281. EMPLOYMENT INFORMATION AND GUIDANCE BUREAU, *Chemistry Postgraduates and Their Employment*, Ker. U., 1971 (UGC-financed)

The aim of the investigation was to find out about the employment of master of science degree-holders in chemistry who had passed out between 1966 and 1971 from Kerala University.

Data were collected through a questionnaire mailed to 355 M.Sc. degree-holders in chemistry. The number of questionnaires returned was seventy — fifty from men and twenty from women. Out of the seventy, eighteen had passed in first class, forty-nine in second class and three in third class.

The main findings of the investigation were: (i) Fifty-seven per cent of the sample belonged to agricultural class, 10 per cent were from families of government servants and 21 per cent from families engaged in other services. (ii) The percentage of the students from the lowest socio-economic class was low. (iii) The women students generally belonged to the higher socio-economic class. (iv) Only two out of the sample of seventy continued their education. (v) The students who secured first class preferred teaching-cum-research work, followed by teaching. This preference was reversed in the case of second class students. (vi) Of the sample, sixty-eight were employed. (vii) Within three months, 58 per cent had

secured employment and 30 per cent after twelve months. (viii) The majority of the respondents were employed as lecturers in private colleges. (ix) As many as 6 per cent had entered clerical cadre. (x) Of the respondents 44 per cent were not satisfied with their jobs. (xi) Only a small proportion of the respondents were registered for employment. (xii) Lack of information about employment opportunities was evident.

1282. FINANCE AND PLANNING DEPARTMENT, *Survey of Primary Education in Telangana Region, Hyderabad, 1974*

The objectives of the investigation were: (i) to assess the wastage and stagnation at the primary school level, and (ii) to make a survey of the location and adequacy of primary schools and structures of primary education with particular reference to the adequacy of teachers, syllabi, equipment, teaching methods, inspection, supervision and finances.

A stratified sampling design was adopted for the survey in the rural areas, each district in the region being a stratum. From each district, twenty-five villages were selected on a circular systematic sampling basis among the lists of villages having one or more primary schools in the district. As regards the urban areas, twenty-five schools, having primary sections, in various cities of Telangana were selected on a circular systematic sampling basis. Thus, in all, 271 schools in the rural areas and 71 schools in the urban areas in Telangana region of Andhra Pradesh were covered in the survey. Certain background information on the selected villages was collected with a view to analysing the enrolment, stagnation and drop-out. In the rural areas, a sample of households was surveyed for ascertaining the reasons for some of the households not sending their children to school. Six schedules were developed to collect information. These were Houselisting Schedule, Village Schedule, School Schedule, Teacher's Schedule, Pupils' Schedule, and Household Schedule. All the schedules were administered in rural areas, while the schedules for the school teacher and pupils were administered in urban areas. Mean and percentage were used to analyse the data.

The investigation yielded the following findings: (i) Among the districts, the percentage of villages not having the facility of primary school was highest in Adilabad district. (ii) A majority of the primary schools in the urban areas were run by the government while those in rural areas by Panchayat Samithis. The schools under private management were negligible in rural areas,

while they were a little less than one-third of the total in urban areas. (iii) A little more than half of the schools in both urban and rural areas were located in healthy surroundings while the remaining ones were in dusty or smoky or noisy surroundings. (iv) The sanitation facilities were better in urban schools than in rural schools. About 63 per cent of the sample schools in urban areas had urinal facilities against 3.1 per cent in rural areas. (v) The proportion of single teacher schools in the rural areas ranged from 43.4 per cent in Karimnagar district to 66.7 per cent in Hyderabad district. (vi) The percentage of girls attending schools was considerably lower than that of boys in all the age groups and the disparity tended to become more acute in the higher age groups. (vii) Domestic work and participation in economic activity were the two important reasons attributed to the non-attendance of children in schools in rural areas. Among boys the important reason was participation in economic activity of the family while it was domestic work in the case of girls. (viii) About 64 per cent of the children were enrolled in schools situated in healthy surroundings in the case of both urban and rural areas. (ix) The percentage of stagnation and drop-out was generally lower among boys than among girls. (x) The propensity of pupils to drop-out from schools was quite strong in rural areas as compared to that in urban areas. The structure of schools had some impact on the proportion of stagnation among pupils enrolled in such schools. (xi) The incidence of stagnation among primary schools was high among single teacher schools as compared to multiple teacher schools in urban as well as rural areas. (xii) A significant proportion of the teachers were non-matriculates. Untrained teachers constituted 15.6 per cent of all the teachers in urban areas and 11.9 per cent in rural areas. (xiii) In rural areas matriculate teachers constituted 70.6 per cent of all the teachers while non-matriculates formed 26.1 per cent and graduates 3.3 per cent.

***1283. GADGIL, A.V., *Evolution of the Concept and Practice of Inspection and Supervision of Secondary Schools in Maharashtra, 1855 Onwards*, Ph.D. Edu., Poona U., 1976**

The objective of the study was to examine the evolution of the concept and practice of inspection and supervision in Maharashtra.

Data were collected from Western Maharashtra which had an unbroken tradition of educational administration and supervision at the secondary stage. Be-

sides the reports and records of the Education Department, questionnaires and interview schedules were used for obtaining viewpoints on the process of inspection and supervision; a questionnaire was developed for headmasters and inspectors so as to elicit their understanding of the difference between inspection and supervision, their purposes, qualities expected of inspectors and supervisors, desirable aspects of existing inspection as well as major defects, and good points of the existing system as well as suggestions regarding the manner in which concepts and procedures may be formulated. The questionnaire was sent to 250 selected representative headmasters, most of whom were members of the Council of Maharashtra State Federation of Headmasters Association and also to District Educational Inspectors.

The study indicated: (i) Before the Department of Education was set up in Bombay Presidency, indigenous, vernacular and English schools and colleges existed, which were recognized and superintended by the Board of Education. (ii) The Department of Education was set up on the recommendations of the Woods Despatch; though detailed instructions were issued the supervision and control was not very different from what already existed in England. (iii) The pre-service training and evaluation of teachers, inspection and guidance were strengthened from 1865 when grants based on results were obtained. (iv) In the period 1885-1947, encouragement to private enterprise resulted in more responsibility and work for inspectors but the concomitant facilities were not in keeping with demands. (v) Independence resulted in change in attitude; security and stability stepped up expansion but lowered standards as control, inspection and supervision slackened; the District Educational Inspectors were assigned responsibilities in zilla parishads. (vi) The selection and appointment of District Educational Officers was not satisfactory, they lacked experience, insight and vision and did not command respect; they were not able to guide teachers and were tarttart. (vii) As regards salary-status, the inspectors belonged to the highest cadre and enjoyed control of the district and commanded reasonable authority. (viii) There was not only variety but multiplicity in the duties and responsibilities of the Education Officers of the district who were in charge of all stages of education. Limiting the charge from division to district did not ease the situation or bring about efficiency or improved standards as the number of schools had increased several-fold. Division of charge and separating inspection from administration was essential. (ix) There was little effort to enable the Education Officers to be properly prepared to cope with the increasing complexities of the

work involved. (x) Nine functional inspectorates were created in the hundred year period while some of the functional inspectorates ceased to have any speciality or importance and were therefore disbanded; separate inspectors for drawing and craft and commercial schools worked independently, had no control over the schools and institutions and, therefore could not expect compliance of recommendations and suggestions. (xi) From 1902 women's education was recognized and separate inspectresses to inspect girls' schools were appointed but the women's branch was done away with in 1953. (xii) The existing form of the Inspection Report was introduced in 1918 and no modifications were made to incorporate changes in curriculum, syllabi and the like.

***1284. GANAPATHY, K.S.,** *A Study of Decision-making Process in relation to Innovation and Change in Schools*, Ph.D. Edu., SGU, 1982

The objectives of the study were: (i) to find out decision-making process used by the headmasters of progressive schools in Coimbatore district, (ii) to find out the components of decision-making process, (iii) to find out communication patterns followed by decision-makers, (iv) to find out decision-making styles followed by decision-makers, and (v) to find out constraints for decision-making.

The sample consisted of thirty school headmasters and three teachers selected from each of the schools selected for the study. Data were collected by using a list of innovations, a decision-making process questionnaire, a check-list of constraints for decision-making, an interview schedule and a decision-making style checklist. The collected data were analysed by chi-square and t-test.

The major findings of the study were: (i) The headmasters followed a process while arriving at a decision. The decisions were not based on subjective judgement. (ii) The decision-making process took place at two levels. The first level was the individual level and the second level came into operation when the headmaster communicated his ideas of innovation and tried to get his ideas translated into action through his teachers. (iii) Very rarely an innovation was introduced for the sake of prestige. (iv) The headmaster sometimes consulted all teachers and other headmasters while analysing the felt need. (v) The headmasters clearly understood the disequilibrium and cause for it. (vi) The source of innovation was the headmaster's own thinking. (vii) The headmasters tentatively decided to introduce the innovation

if the evaluation was favourable. (viii) The headmasters followed three methods for evaluating the innovation. These were observation, evaluation of consequences in meeting, and informal enquiry. (ix) Fear of failure, preconceived notions, disinterested staff were some of the constraints in implementing innovations.

- 1285.** GANESH, S.R., *Building Management Education Institutions: Processes and Performance*, Administrative Staff College of India, Hyderabad, 1979 (ICSSR-financed)

The study attempted to identify and operationalize performance and processes for two types of institutions, viz., the post-experience institutions and the post-graduate institutions. The study also aimed to throw light on how processes influenced performance.

Being an exploratory study, a total of six institutions were taken. The Indian Institute of Public Administration (IIPA), the Administrative Staff College of India (ASCI), and the National Institute of Bank Management (NIBM) were chosen among the post-experience institutions. The Indian Institute of Management at Ahmedabad and Calcutta (IIMA and IIMC), and the Jamnalal Bajaj Institute of Management Studies (JBIMS) affiliated to the University of Bombay, comprised the group of postgraduate institutions. Rank ordering of institutions on the dimensions of capability development, innovative thrust and penetration was done.

The important findings of the study were: (i) Three types of mechanisms emerged which mediated, respectively, performance on capability development (related to system survival), innovative thrust and penetration (related to system effectiveness). (ii) Relative strengths of respective process mechanisms were influencing performance on various dimensions. (iii) Relevance building and impact were considered two important elements of institutionalization. Research and dialogue were considered important mechanisms for building relevance. Also, dissemination and transfer were considered important elements in the process. (iv) Strong recruitment and enculturation mechanisms contributed to the rapid development of faculty in the initial years. Where these mechanisms were weak, they resulted in slow development of the faculty in the early years. (v) Choice of institutional form, identity building, maintenance of boundary, enlargement of boundary, shrinkage of boundary and redefinition of mission when strong, resulted in higher performance on funds availability. Weak mechanisms resulted in lower performance. (vi) Loca-

tion, resource mobilization and support mobilization were the key influences in the performance of faculty. Location had a strong mechanism for all the institutions. (vii) Unlike the case of capability changes, the relationships between processes and performance did not appear to be clear-cut. (viii) Choice of leadership, leadership style, change in leadership, research, dissemination and dialogue mechanisms were strong in the case of the IIMA.

- 1286.** GCPI, *A Comparative Study of the Pay Scales, Dearness Allowances and Academic Qualifications of the Officers of the Departments of Education and the Teachers of Government High and Higher Secondary Schools of Various States of India*, Allahabad, 1969

The objective of the investigation was to make a comparative study of the pay scales, dearness allowances and academic qualifications of officers of the department of education and the teachers of government high and higher secondary schools of different States of India.

Relevant data and evidence were gathered from a few books published by the Ministry of Education, Government of India, namely, Education in India (1959-60) Parts I and II, Education in the States (1960-61), Report of the Education Commission (1964-66), Expenditure Pattern in Education for Different States in India, published by the Government Central Pedagogical Institute, Allahabad (1966). Besides this, other related information on the various aspects of the study was collected directly from Uttar Pradesh, Madhya Pradesh, Tamil Nadu, Kerala, Andhra Pradesh, Punjab, and Andaman and Nicobar up to 1968. Comparisons were done by computing the percentages and frequencies.

The findings of the investigation were: (i) In a few States/Union Territories like Uttar Pradesh, Madhya Pradesh, Bihar, Andhra Pradesh, Tamil Nadu and Delhi, there was invariably much emphasis on the professional training of teachers and administrative officers of the educational departments, whereas in some States like Assam, Gujarat, Maharashtra, Kerala and West Bengal the training of administrative officers of the departments of education was not necessary. Similarly, in the States of Assam, Madhya Pradesh, Maharashtra, Karnataka, Orissa, Rajasthan and West Bengal, untrained graduate teachers were appointed in place of trained graduate teachers. The academic qualification required for the post of Deputy Inspector of Schools in almost all the States was a graduate degree with training,

but in Rajasthan and Manipur only trained matriculates were appointed to this post. In the States of Gujarat, Madhya Pradesh, Maharashtra and Orissa trained intermediates, and trained matriculates were also appointed to this post along with the trained graduates although their pay scales were different. (ii) In comparison to the State of Uttar Pradesh, the pay scales for the posts of director of education, joint director of education, deputy director of education (women), principal, and trained graduate teachers, were much better in the States of Maharashtra, Punjab, West Bengal, Gujarat and Bihar. Except for these posts, the pay scales for the other posts were much better in Uttar Pradesh than in other States. (iii) The per capita expenditure on education was lowest in Uttar Pradesh as compared to other States except Bihar. (iv) The dearness allowance for all stages was equivalent to the Central Government's in Punjab, followed by Tamil Nadu, Andaman and Nicobar Islands, Kerala, Madhya Pradesh and Andhra Pradesh, whereas the dearness allowance in Uttar Pradesh was the lowest. However, the maximum total pay was in Uttar Pradesh, then came Kerala, Madhya Pradesh, Andhra Pradesh and Tamil Nadu.

1287. GCPI, *A Study of the Condition of Libraries and Reading-rooms in Government Higher Secondary Schools*, Allahabad, 1981

The objectives of the investigation were: (i) to study the existing conditions of the libraries of government higher secondary schools in Uttar Pradesh, (ii) to find out the various factors responsible for the unsatisfactory conditions of these libraries, and (iii) to suggest various possible measures to improve the existing conditions of the libraries of government higher secondary schools.

The study was carried out at ten government higher secondary schools spread all over Uttar Pradesh so as to represent various regions of the State. Of these, three schools were for boys and three for girls. Relevant information for detailed study was collected from ten principals of these schools and ten students from each of the ten schools from Grades VIII to XII. The tools used for data collection were two library study proformas, one of which was given to the principals and the other to students. Percentages were computed to analyse the data.

The findings of the investigation were: (i) The condition of the libraries in the government higher secondary schools was not satisfactory. The buildings were insufficient; equipment was inadequate; there was no provision for separate reading-rooms except in double-shift

schools; there were no full-time trained librarians. (ii) Library services were usually not available. (iii) There was no provisions for fixed grants to the libraries for purchase of new books or magazines; keeping in view the number of the students the number of magazines in the reading-rooms was insufficient.

In order to improve the conditions of the libraries, it was suggested: (i) At least 10 per cent of the contingency grant should be spent on the libraries. (ii) From the grant, books and magazines of utmost use to students should be purchased. A list of such books and magazines should be provided to the concerned schools. (iii) Where trained librarians were not available, management of the library should be entrusted to a clerk or to a teacher who should be made free from all other duties. (iv) The library rooms should be repaired from the contingency grant. (v) Principals should be given authority to collect library fees. (vi) Students' cooperation should be sought in maintaining better library services. (vii) Every year there should be held an exhibition related to library services and efficient library employees should be rewarded.

1288. GCPI, *A Study of the Effectiveness of Panel Supervision in Secondary Schools*, Allahabad, 1981

The main objectives of the investigation were: (i) to study the effectiveness of panel supervision in secondary schools, and (ii) to suggest measures for effective panel supervision.

Two schools from the adjoining areas of Allahabad, namely, Ranjit Pandit Inter College, Naini and Mewa Lal Ayodhya Prasad Memorial Inter College, were purposively selected for the study. Three other schools from the city of Allahabad were also selected to observe the prevailing practices of panel supervision. The instruments utilized for data collection were the previous records of supervision of the schools under study for the years 1976, 1977 and 1978, questionnaires covering the current practices and expected improvements in the existing systems of panel supervision filled in by ten principals, fifty teachers and twenty experts and an observation schedule for studying the current practices of panel supervision in the schools under study. The data were analysed by computing the frequencies and percentages.

The findings of the investigation were: (i) Panel supervision was not effective and had been reduced to a mere formality. The school authorities as well as the supervisors were not aware of its necessity. (ii) The main

reasons for its inefficient working were low remuneration, insufficient time for supervision and lack of experience of working in a secondary school on the part of the members of the panel.

Some of the suggestions made were: (i) Supervision should be completed before the end of January, the concerned school should be communicated the dates of supervision fifteen days in advance and supervisory reports should be sent to the concerned school within one month from the date of supervision. (ii) District School Inspectors and Assistant District School Inspectors should be present in the schools for the entire supervision; the tenure of panel supervision should not be less than four days. (iii) A follow-up of the reports of panel supervision should be undertaken, the remuneration to the members should be fifty rupees per day and it should be given immediately after the work and the teachers found working efficiently should be given merit certificates and other rewards. (iv) The report of the supervision should be subject-based as well as teacher-based; the panel should have only experienced and renowned teachers who should be experts in their own subjects. (v) The members of the panel should give demonstration lessons and the panel should supervise co-curricular activities of the school. (vi) The achievements of the school should be highlighted in the report and positive suggestions should be given to rectify the observed drawbacks and after the completion of the supervision there should be provision for a general meeting of the members of the supervisory panel and the parents of the children studying in the concerned school.

1289. GOGATE, S.B., *A Critical Study of the Conditions of Second Year of Junior Colleges in Maharashtra, 1976-77*, Ph.D. Edu., Poona U., 1980

The major objectives of the investigation were: (i) to study the conditions prevailing in the junior colleges teaching the second year of junior college (Class XII), (ii) to study the stream-wise and region-wise strength of students in Class XII, (iii) to study the academic, financial and administrative difficulties of institutions conducting Class XII, (iv) to study the demographic, academic and professional status of teachers, (v) to study some aspects of students like purchasing textbooks, participation in co-curricular activities, library habits, participation in vocational courses, etc., (vi) to compare the intellectual ability of students of different streams, to compare their achievement and to study

the relationship between their intelligence and achievement, and (vii) to study the causes of poor results in the institutions.

The sample comprised forty institutions out of 599 institutions which were allowed to open Class XII. Information was sought from all 599 institutions regarding the streams opened and the subjects offered. But 391 institutions responded. The forty institutions were selected from these 391 institutions, giving representation to four regions, viz., Greater Bombay, Western Maharashtra, Vidarbha and Marathwada, urban and rural areas, schools and colleges. Out of twenty-five districts, twenty-two districts were represented. The tools and techniques employed were questionnaires for schools, teachers and students, mark sheets from S.S.L.C. Board Office, Naphade's Non-Verbal Test of Intelligence, an achievement test prepared by the investigator and interviews.

The important findings of the investigation were: (i) Rural colleges had better accommodation than rural schools, urban colleges had better accommodation than rural colleges and urban schools had better accommodation than rural schools. (ii) Library facilities were better in colleges than in schools and were better in urban areas than in rural areas. (iii) Laboratory facilities in urban and rural colleges were better than in rural schools. (iv) The percentage of teachers having a master's degree with or without a professional qualification was more in urban schools and colleges and rural colleges than in rural schools. In urban and rural colleges, these percentages were 92.68 and 99.02, respectively, the corresponding figures in urban and rural schools were 70.90 and 65.52, respectively. (v) The percentage of teachers receiving the prescribed salary scale was lowest in rural schools. (vi) More teachers from colleges had written books than those from schools. (vii) More students approached teachers for guidance in schools than in colleges and in urban institutions than in rural institutions. (viii) Collegiate and urban institutions had better facilities for co-curricular activities than schools and rural institutions. (ix) A large number of students from colleges participated in sports as compared to students from schools. But a larger number of students from schools participated in elocution, dramatics and social work as compared to college students. (x) Institutions managed by voluntary agencies amounted to 85.67 per cent, government managed 1.79 per cent and zilla parishad managed 4.60 per cent. Urban schools had better management than urban colleges. (xi) Urban schools and rural colleges had more problems of discipline than rural schools and urban colleges. (xii) College students

selected their own subjects whereas students in schools were required to select subjects which the schools offered. (xiii) A very high percentage of students from all the streams would have joined vocational courses if they were provided in schools and colleges. (xiv) Marathwada had the minimum number of students registered for Class XII whereas Western Maharashtra had the maximum. (xv) The academic performance of students directly depended upon the conditions prevailing in the institutions. (xvi) Regional imbalance was seen not only from the point of view of distribution of facilities for education but also from that of qualitative performance of students.

- *1290.** GOGATE, S.B., *Development Programme of Arts, Science and Commerce Colleges Affiliated to the Marathwada University, 1980-1990*, the Marathwada University, Aurangabad, and the Indian Institute of Education, Pune, 1980

As a result of the introduction of 10+2+3 pattern of education in Maharashtra in July 1975, arts, science and commerce colleges in the State, particularly in its rural areas, faced a problem of inadequate student strength from June 1977. The problem became acute in the years 1979-80 and 1980-81. The colleges were worried about their future. At the same time the colleges in Marathwada Region felt many inadequacies, insufficiencies and lack of funds. It was, therefore, decided, as a first step, to undertake a comprehensive survey of the colleges and then to assess the situation as would develop during the decade 1980-90.

The tool employed for collecting information was an exhaustive questionnaire which included (i) general information regarding the type of college, faculties, medium, students as on 1 October 1979, etc., (ii) college building and accommodation, (iii) college laboratories, (iv) college staff, teaching and non-teaching, (v) subjects taught at the undergraduate and postgraduate levels, (vi) available teaching aids, (vii) details of college library and library services, (viii) co-curricular activities, (ix) finance, (x) management, (xi) gymkhana activities, (xii) targets of enrolment for 1980-1990, (xiii) courses and subjects the college proposed to introduce in 1980-1990, (xiv) proposed additions to physical facilities, (xv) proposed additions to library books and science equipment, (xvi) proposed additional co-curricular, gymkhana, extension activities, (xvii) proposed changes in the pattern of administration, (xviii) developmental projects the college proposed to undertake during the

period 1980-1990, (xix) resources necessary for development, (xx) the manner in which college proposed to raise the resources, (xxi) expectation of the college regarding the role of the state government and the university in this development, and (xxii) the direction in which the college expected the Marathwada University to develop during the period 1980-90. All the 66 arts, science and commerce colleges responded to the questionnaire.

The major findings of the study were: (i) Out of the 66 colleges, three colleges had a student strength below 50 in all the classes leading to the first degree, 27 colleges had students between 51 and 100, 31 colleges between 101 and 300 and five colleges between 301 and 500. (ii) All the 66 colleges together had 5,235 students (781 women and 4454 men) in First Year classes, 3,882 (705 women and 3177 men) in Second Year Classes, 2,945 (524 women and 2421 men) in Third Year classes and 2200 (238 women and 1,962 men) in postgraduate classes. (iii) Enrolment in commerce faculty was maximum. This was followed by arts faculty. Science faculty had the minimum strength. (iv) The colleges in Marathwada suffered in student strength mainly due to poor results at SSC(X) and HSC(XII), which were in the range of 30 and 40 per cent. (v) A large number of students, around 40 per cent, did not pursue academic courses beyond SSC(X). (vi) Fifty-one colleges had hostel facilities. (vii) Out of sixty-six colleges only twenty colleges had separate staff room for women teachers, thirty colleges had toilet facilities for women teachers, fifty colleges had toilet facilities for boys and forty-nine colleges had toilet facilities for girls. Thirty-one colleges had a college canteen. (viii) Out of around 2,800 staff members 192 teachers belonging to junior colleges and 124 teachers belonging to senior colleges did not have adequate qualifications as per University/Government rules. (ix) Unit cost of education in Marathwada was Rs. 1,300 out of which Rs. 979 was expenditure on salary to teachers. This unit cost was lower as compared to Maharashtra. It was also lower due to the fact that major part of expenditure was shared by junior colleges which were financially separate entities. (x) The normal rise of student strength expected during 1980 and 1990 was 5 per cent per year. (xi) The colleges in Marathwada needed a development fund on the basis of which they could undertake additional activities during the next ten years. (xii) Teachers both in junior and senior colleges needed orientation in content and methodology. (xiii) Better and effective college-school complexes were necessary to improve results at SSC(X).

- *1291.** GOGATE, S.B., *A Comprehensive Study of*

Junior Colleges in Marathwada, Project undertaken by IIE, Pune, in collaboration with Swami Ramanand Teerth Research Institute, Aurangabad, 1981

The objectives of the investigation were: (i) to assess the availability of physical and academic facilities in junior colleges in Marathwada in regard to library, laboratory, staff, co-curricular activities, teaching aids, finances of institutions conducting junior colleges (XI and XII) and their examination results, (ii) to study the causes of poor results of Higher Secondary Certificate (HSC) Examination in Marathwada, (iii) to find out whether malpractices took place during the HSC Examinations, and if so, to study the factors contributing to these malpractices, (iv) to assess the relationship between the heads of junior colleges and the staff and to study the educational climate in these institutions in this regard, (v) to undertake a comprehensive evaluation of junior colleges in Marathwada, (vi) to study whether the teachers, parents and members of the management were aware of educational objectives, and (vii) to identify individuals and institutions who were willing to volunteer for educational improvement in Marathwada and to plan activities to change the educational climate in the institutions.

The study was undertaken with the help of questionnaires for the heads of junior colleges, teachers, members of management, parents and students. By and large, personal information, attitudes towards education, facilities available in junior colleges, the use of libraries and laboratories were the items which figured in the questionnaires. Responses from sixty-three heads of junior colleges, 646 teachers, 116 members of management, 422 parents and 3,597 students were obtained.

The major findings of the investigation were: (i) The junior colleges in Marathwada did not have good libraries. Reading arrangements were not adequate in the libraries. Very few institutions had night libraries. Students were happy about laboratory facilities. Teachers teaching at the +2 stage lacked in knowledge of content as also in methodology of teaching. All junior colleges did not have minimum co-curricular activities. Teaching aids were not used adequately. The junior colleges attached to schools did not have sufficient funds to spend on libraries and laboratories. The results of HSC(XII) in Marathwada were poor in relation to the rest of Maharashtra. (ii) The causes of poor results were: students felt that teachers were not regular; colleges did not provide sufficient facilities; teachers brought outside politics in the college; teachers felt that students were

not able to cope with the heavy syllabus and were not able to do hard work; parents felt that political leaders and students were responsible for poor results; they also felt that colleges should begin their session in time and function regularly, and that there should be coaching classes for retarded students; students felt that they should be given orientation in methods of study and that the teachers should come to classes well prepared. (iii) Regarding malpractices at the time of examinations, the teachers felt that they were due to the fact that students wanted to achieve results without putting any efforts and that officials did not take decisions on time and connived at malpractices and educational climate was spoiled and political leaders interfered. (iv) There appeared to be a lot of misunderstanding among the members of the management, principals and teachers.

***1292.** GOGATE, S.B., *A Comprehensive Study of Secondary Schools in Marathwada*, Swami Ramanand Teerth Research Institute, Aurangabad, and the Indian Institute of Education, Pune, 1982

The objectives of the investigation were: (i) to study the exact position of schools in Marathwada in regard to school buildings, number of students, libraries, laboratories, other amenities, co-curricular activities, SSC results, etc., (ii) to study the following factors in regard to Zilla Parishad schools and schools conducted by private managements: nature and status of management, relations between teachers and headmasters, student indiscipline, participation of Zilla Parishads and the people around the schools in the management of the schools, etc., (iii) to assess the nature of relationship between teachers and headmasters, guardians and schools, and the way these relationships affect the school climate and the progress of pupils, (iv) to study and analyse the cause of poor results at the SSC Examination, (v) to study how far teachers and students could cope with the new syllabus and also to study whether facilities for teaching new syllabus were adequate, (vi) to assess the effect of pre-Independence atmosphere and that of post-Independence social activities on the schools, and (vii) to study and identify factors for improving the general atmosphere of secondary schools and in particular to see what steps needed to be taken to improve the results of the SSC Examination.

The schools were divided into eight categories on the basis of (i) rural-urban, (ii) Zilla Parishad-private management, (iii) good results at SSC — poor results. En-

glish-medium schools were the ninth category. The number of schools, selected partly on the basis of random sampling and partly on their participation in school-college complex, was 188 out of the total number of 860 schools from the entire region, teaching up to 10th standard. The tools used were a questionnaire, achievement tests and a tool to grade secondary schools.

The conclusions of the investigation were: (i) Urban schools provided better facilities than rural schools and private schools were better in all respects than Z.P. schools; Z.P. schools lacked basic facilities. (ii) There was a constant interference of Z.P. members in the management of Z.P. schools. In the case of the schools managed by voluntary agencies, particularly in rural areas, managements were indifferent to the problems of the schools. (iii) An attitude of indifference by teachers and headmasters, apathy on the part of general population, poor quality of primary education, interference by managements, poor facilities in schools, inability of students to buy textbooks, failure in subjects like English and mathematics and malpractices in examinations were the causes of poor results. (iv) Students from rural areas found the syllabus revised in 1975 difficult. (v) Marathwada region lagged behind the rest of Maharashtra as it was neglected by the Nizam regime prior to 1948.

***1293.** GOGATE, S.B., *A Critical Study of the Drop-outs at the +2 Stage (New XI and XII) in Raigad (Kolaba) District Maharashtra, during 1978-80*, Indian Institute of Education, Pune, 1982

The objectives of the investigation were: (i) to ascertain the percentage of the students who had not joined classes XI and XII, (ii) to study the factors affecting the students who had not joined classes XI and XII, (iii) to study the courses followed by the students after passing SSC (X), (iv) to recommend measures to avoid wastage after SSC (X), and (v) to study rural-urban, male-female differences among the drop-outs at classes XI and XII.

The major findings of the investigation were: 2,067 students had passed SSC(X) from Raigad district in 1978, and 1,345, i.e., 65.07 per cent, students had appeared at HSC examination (XII) in 1980. Thus 722, i.e., 34.93 per cent students had not joined classes XI and XII. Out of these 722, 229 students out of 786 (29.14 per cent) were urban while 493 out of 1281 (38.40 per cent) were rural. Thus 70.80 per cent students from urban areas and 61.51 per cent students from rural areas joined classes XI and XII. Out of these 722 students who had not joined classes XI and XII, 504 responded to the

questionnaire sent by the researcher. Out of the 229 urban students information in respect of 123, i.e., 53.7 per cent, was received. Out of the 493 rural students information from 381, i.e., 77.28 per cent was received. Quite a small number of boys and girls, 12 (2.38 per cent) joined Government Polytechnic while 84 students (16.66 per cent) joined other vocational courses. Forty-one (8.13 per cent) students joined Diploma in Education course, 157 (31.15 per cent) students accepted job after SSC (X) while 173 (34.33 per cent) students were not able to do anything beyond SSC (X). A small percentage of students, about 6 per cent, were either married or were engaged in miscellaneous activities. Then about 150 students were approached to indicate why they could not pursue traditional or vocational courses; 140 (93.33 per cent) students responded that they could not do so owing to adverse financial conditions. Seven students (4.66 per cent) felt that further education was not useful while three students (2 per cent) complained that facilities for further courses were not available in the town. Eighty-five randomly selected students were contacted at their residence. They informed that they could not join classes XI or XII or any other course due to poverty. Traditions in the family and business of the family were also other forces restricting students from joining classes XI/XII or any other course. Rural students did not join classes XI or XII as the classes were not available in the schools located in the town. Students wanted to join a variety of vocational courses like sewing, agriculture, fishery, poultry, pharmacy, etc. These and similar courses were necessary in schools located in towns smaller than talukas. Girls, particularly from rural areas, did not take further education due to social and cultural factors. Many students did not know what to do further after their SSC (X). They had no information about the courses they should follow and guidance services were not effective in the schools they had attended.

***1294.** GOVINDA, R., *School Education in Rural Areas: a Study of Tumkur District*, ISEC, Bangalore, 1980

The investigation aimed at studying the present status of school education in Tumkur district of Karnataka. The specific objectives were: (i) to examine the distribution of facilities for school education in different parts of the district, and (ii) to appraise the quality of existing schools in terms of physical accommodation, playground, science equipment, library, extra-curricular activities, teachers, incentive schemes in operation and ex-

tent of wastage.

A sample of 245 villages constituting about 10 per cent of total number of inhabited villages (according to the 1971 Census) in the district was brought under the study. The 245 villages were selected randomly with proportionate representation for each of the ten talukas to the district. Data were collected from all the lower primary schools (LPSs), higher primary schools (HPSs) and high schools (HSs) located in the sample villages with the help of a questionnaire designed by the investigator. The questionnaire information was collected and filled in either by the concerned school teacher or by the concerned graduate inspector. A separate questionnaire was got filled in for each school. Data were analysed in terms of percentages separately for LPSs, HPSs and HSs.

The main findings of the investigation were: (i) Almost one out of every four sampled villages (59 out of 245) did not have even a lower primary school within the habitation. However, there was grave intra-district disparity in this regard, as for instance, all the sampled villages in Pavagadh taluk had at least a lower primary school while 45 per cent of the sampled villages in Koratagers were schoolless villages. Also, a considerable number of these schoolless villages did not have a school within walking distance. (ii) Only one out of every four villages, with a school had facility for higher primary schooling and only one out of every twelve villages with a school had a high school. Further, considerable inter-taluk disparity was there in this regard. (iii) No association could be observed between the level of schooling facility and the population size of the village. For instance, certain villages even with a population of 2501 to 3000 did not have anything beyond a lower primary school whereas some villages with a population of just 501 to 750 had high schools within the village. (iv) More than 40 per cent of lower primary schools were single-room units and a large number of HPSs were two- or three-room units. Only a little more than 1 per cent of LPSs had four or five rooms providing for a separate room for each of the four classes (Standards I to IV), and only about 15 per cent of HPSs had similar facilities. (v) Many of the classrooms were overcrowded and physical accommodation were adjudged to be quite inadequate. (vi) Except for a few cases there were no playground or sports equipment in any of the schools. (vii) Facilities in terms of science teaching equipments were at an extremely poor state in most of the schools. (viii) About 60 per cent of LPSs did not have library units attached; but all HPSs and HSs had this facility. However, the average student-book ratio was 2:3 in LPSs and it was 1:4 and 1:6

in HPSs and HSs, respectively. (ix) Extra-curricular activities were totally unknown to children studying in most of these schools. Even in those few schools where literary and science clubs were organized the activities were routine type and lacked novelty. (x) Most of the rural schools were understaffed. All the LPSs studied, except one, had to resort to multiple class teaching; about 87 per cent of these were single teacher schools. Also, a majority of the HPSs had only three to five teachers for teaching the seven different classes (Standards I to VII). (xi) Student strength of the school varied in an erratic manner irrespective of the number of teachers. Forty-eight per cent of LPSs and 40 per cent of HPSs had more than forty students per teacher. Several of them had more than sixty students per teacher and a few of them had even more than one hundred students per teacher. But there were also some schools which had less than twenty students per teacher. (xii) About 62 per cent of LPS teachers did not live in the village where the school was located; corresponding figures for HPSs and HSs were 70 per cent and 52 per cent, respectively. About 30 per cent of the teachers, in fact, had to travel more than four kilometres to reach their place of work. (xiii) About 20 per cent of the teachers of primary schools (LPSs as well as HPSs), were not even matriculates, and a considerable number of these non-matriculate teachers had not undergone any training in pedagogy. Even among matriculate teachers, about 20 per cent teachers did not have any training in teaching. (xiv) Midday meals, supply of free textbooks and attendance scholarship were the three main incentive schemes that were in operation in the rural schools. Free textbook scheme covered a larger number of schools than the others. The proportion of the schools benefited by midday meals and attendance scholarship schemes was very small and unsatisfactory. Also, adoption of the schemes in different schools was uniform neither in terms of coverage of beneficiaries nor in the exact method of implementation. (xv) In about 50 per cent of the schools, only four out of ten students remained to complete four years of schooling. However, there was considerable variation in the extent of wastage among different taluks of the district. Also there was wide difference in the magnitude of wastage among boys and girls. The extent of wastage in Pavagadh taluk was much less than in certain other taluks although Pavagadh holds the largest proportion of Scheduled Caste population among all the taluks of the district.

1295. GOYAL, J.C. and AJIT SINGH, *Non-enforce-*

ment of Conditions of Affiliation in Colleges of Education — a Study of Reasons, NCERT, New Delhi, 1981

The major objectives of the study were: (i) to inquire into the conditions of affiliations laid down by different universities, (ii) to identify the conditions which were not enforced properly by the universities, (iii) to investigate the reasons for non-enforcement of conditions of affiliation, and (iv) to make recommendations for proper enforcement of conditions of affiliation.

The sample consisted of nine colleges selected from nine universities of four States selected on a random basis. The tools used in the enquiry were a questionnaire and an interview schedule.

The main findings of the study were: (i) The conditions of affiliation laid down by most universities were not comprehensive and specific. It appeared to be one of the reasons for their non-enforcement. (ii) Most of the universities did not have adequate machinery for proper enforcement of conditions. Only some universities had provision for the posts of inspectors of colleges, who, however, were not very effective because of involvement in other activities. (iii) Some universities had the practice of granting temporary affiliation to newly started colleges on condition that the colleges would comply with the requirements of affiliation but there was no strict enforcement of conditions later on. (iv) Autonomy granted to some types of institutions also came in the way of enforcing the conditions of affiliation. (v) Having B.Ed. course as a part of the arts/science college also contributed to non-enforcement. (vi) Inadequate and ineffective inspection, lack of interest on the part of management, social and political pressures were the additional factors responsible for the non-enforcement of conditions.

- 1296.** GOYAL, M., *Student Perceptions of the University Environment as related to Their Satisfaction in the Northern Indian Universities*, Ph.D. Edu., Kur. U., 1981

The major objectives of the investigation were: (i) to explore the question of individual-environment interaction in northern Indian universities, (ii) to find out the relationship between the self and various aspects of the university environment and dissatisfaction, (iii) to study whether students of different universities perceived their university environment differently, (iv) to study the trends in the perception of various dimensions of the

northern Indian university environment by the university students, and (v) to assess the sources of conflicts and strain within the university environment.

The sample consisted of 2,151 final year students of fourteen Indian universities of the northern region. The sample students were administered the Transactional Analysis of Personality and Environment (TAPE) and the University Environment Inventory (UEI).

The findings of the investigation were: (i) There were large discrepancies between the way the students saw themselves and the various parts of the university, viz., students, faculty, administration, etc. (ii) The students viewed their university environment not very positively although they viewed their university environment slightly above average with respect to academic interest and enthusiasm, teacher scholarship and academic attitudes and work facilities and student discipline. (iii) There were more than 20 per cent university students who perceived the university environment as 'a little' or 'not at all' as 'highly developed' or 'does not give opportunity for co-curricular activities', as not 'flexible' or 'paying' and as 'men-making' or 'challenging'. (iv) Most of the students felt out of place while in the university, felt uncomfortable with other students of the university, had the feeling that their values were not similar to those of the faculty and were in disagreement with the administrative rules and regulations. (v) Students of different universities tended to differ in their satisfaction with the different dimensions of the university environment. They were dissatisfied with respect to breadth of interest, student scholarship, academic achievement and clarity of instruction.

- 1297.** GUPTA, S.L., *A Study of the Time Spent on Supervision in Girls' School in Meerut District*, NCERT, 1981

The objectives of the study were: (i) to collect information regarding the time spent by the grass-root level supervisors on different aspects during their school visits, (ii) to compare the time spent in different classes and on different subjects, and (iii) to find out the difference between the norms laid down and practice followed.

An open-ended questionnaire and an interview schedule were constructed, tried out and finalized. These were administered to 50 per cent of the supervisors who were selected through the random sampling method. The recording supervisors were requested to record the supervision time spent by them under three groups — time spent on (i) supervision of a school, (ii)

supervision of school records, reports, accounts, etc., and (iii) supervision of classroom teaching work.

The conclusions drawn from the study were: (i) The minimum and maximum time spent on school supervision was 110 minutes and 325 minutes. (ii) The average time spent on school plant was 21.5 minutes; the maximum and minimum was 30 minutes and 15 minutes, respectively. (iii) The average time spent by a supervisor on school records and accounts was 44 minutes; the maximum and minimum was 90 minutes and 20 minutes, respectively. (iv) The average time spent on academic supervision was 143 minutes with a minimum and maximum of 240 minutes and 60 minutes, respectively. (v) Class I invariably received minimum time (seven minutes) as a part of total supervision time spent by a supervisor for academic supervision of a school. (vi) The supervision of teaching of mother tongue received maximum time, an average 4.4 minutes, arts and crafts the least, an average time of 2.4 minutes.

1298. GUPTA, S.L., *An Intensive Study of the Factors Influencing the Growth of Girls' Education at the Elementary Stage in Uttar Pradesh with special reference to Meerut District*, Ph.D. Edu., Mee. U., 1982

The major hypotheses of the study were: (i) The growth of girls' education was inversely influenced by the proportion of distance between the school and the residence of girls. (ii) The acceptance of the need of girls' elementary education by parents/guardians varied from area to area and community to community. (iii) The attitude of dependence on girls for help at home/farm/shop by their parents/guardians influenced their educational growth adversely. (iv) The school costs, such as the cost of books, stationery, clothing, transport, etc., inversely influenced the growth of girls' education in backward areas. (v) The school organization pattern, such as availability of a separate girls' school, female teachers, sanitary facilities directly influenced girls' education.

The major findings of the study were: (i) The more the distance travelled by girls in rural areas to reach schools for elementary education the less was the enrolment for those areas. (ii) In the case of 87.41 per cent parents of the drop-outs, the parents withdrew their daughters from schools because of their dependence on girls for help for some work or the other at home, on field or in the shop. (iii) The annual school costs were fairly high and varied from class to class and school to school. The overall annual private costs of schooling girls in Class

VIII ranged between Rs.295.20 and Rs.438.15 per girl depending on the location of the school and its management. Even for Class I the overall annual private costs of schooling ranged between Rs. 93.50 and Rs.216.50 per girl. (iv) In all, 63.67 per cent parents of the drop-outs considered the costs heavy and unbearable and stated as third most important reason for withdrawing girls. (v) The majority of the elementary schools had inadequate schooling facilities, such as drinking-water, sanitary arrangements, etc. (vi) Growth of girls' education in the elementary stage in rural areas of U.P. as well as Meerut was slower and less than in urban areas. (vii) There was no exclusively girls' primary school in the State. All were mixed schools.

1299. HEREDIA, R.C., *Structure and Performance of College Education — an Organizational Analysis of Arts and Science Colleges in Bombay*, Social Science Centre, St. Xavier's College, Bombay, 1981

The major objective of the study was to examine the internal organizational structure of selected arts and science colleges affiliated to Bombay University, with special reference to organization, principles of bureaucracy and professionalism, teaching-research dilemma, institutional innovation and external examination system. The basic research problem focussed on the functional efficiency of the affiliating university in a changing social situation and rising expectations it must meet within the constricting limitations.

The study used quantitative methodology for the organizational analysis. The tools used for data collection were records on file, closed-ended questionnaires and open-ended interviews. The sample was drawn from twenty-two colleges out of the twenty-three colleges affiliated to Bombay University. It included 440 respondents spread through different departments of the colleges selected by using the technique of stratified sampling. The data analysis was done at the level of the individual, the department and the college. The statistical techniques used were descriptive statistics, correlational analysis and regression analysis.

Some of the major findings of the study were: (i) The recurring expenditure per student was Rs.680 to Rs.638, of which 54.63 per cent came from the student, 40.82 per cent from government grants and scholarships and 4.55 per cent from the management. All colleges were affected by severe financial stress. (ii) The average score for entering an arts college was 49.512 per cent and that

for entering a science college 57.47 per cent. (iii) The average faculty strength for arts and science colleges was 32.5 and 18.5, respectively. (iv) The student-faculty ratio for arts colleges was 45.126 whereas the same for science colleges was 54.317. The average class size for the first and second years was 132.818 and the same for the third and fourth years was 72.636. (v) About 52 per cent of the time of a college teacher was used up in preparation, teaching, correction, etc., and only 19 per cent of the time was left for study and research. Senior teachers had fewer courses to teach, a smaller teaching load and more time for study and research. (vi) The profile of a college teacher as seen from the study did not categorize the teacher as a professional but rather placed him in the category of a salaried employee constrained by his pedagogic burden. (vii) The principal's influence was seen clearly as dominant in all areas of college organization but only a few enjoyed freedom from the management and support of colleagues to exercise a strong and creative leadership. The departmental head had a great say in appointments in his department but the faculty's share in institutional authority was small. Administrative and academic policy and institutional finance were controlled by the principal and the management. (viii) The colleges had a high degree of paternalism and bureaucratization and low professionalization. Paternalism was positively affected by a high student-faculty proportion but negatively by institutional complexity. Bureaucratization was positively affected by institutional complexity and negatively by institutional age. Professionalization was positively affected by a well qualified faculty and institutional specialization.

1300. HOMMADI, A.H., *The Application of Modern Scientific Management Principles to the Development of the University Administration in Developing Countries*, Ph.D. Com., Raj. U., 1978

The investigation aimed at studying the application of modern scientific management principles to the development of the university administration in developing countries. It attempted to offer some conceptual outlines of how a university of a developing country might transform itself and become one of the more active agents for 'world's transformation'. It also concentrated on stating the problems in higher education and what general directions should be taken to solve them.

A major portion of the reference work done during the past ten years in Iraq, Europe, U.S.A., Egypt and Libya was taken into consideration. Books and journals

of academic institutions of the above countries were referred to. A major portion of the study was about analysing and drafting the functioning of higher education in Afghanistan, Pakistan, India and Bangladesh. The investigator also observed the administrative mechanics, operations and interviewing relevant people in all universities and other institutions of higher learning of the above countries. The investigator tried to understand the view-points of students, professors, administrators and staff, but he based his analysis and judgement on his experience in the field and factual observations and evidence obtained through interviews.

The investigation yielded the following findings: (i) Population explosion, rapid advance and expansion of new areas of knowledge, increased reliance of social institutions on faculty, talent to aid in solution of social and scientific problems, and the resultant increased interest of all high school graduates in college and university degrees — all contributed to the shaping of the university responsibilities and goals. (ii) Despite considerable educational planning activities over the years, educational administration in general and university administration in particular, until very recently, was totally neglected by educators and planners alike. (iii) The impetus of the current attention to university administration in the developed countries came primarily from the development of elaborate management principles and techniques and methods. Several professions were concerned with university administration and management in one way or another. (iv) University administration field had always been a team work in which several types of expertise were called upon to cooperate in solving a complicated case or studying a new administrative subsystem or system. (v) Written objectives of the university administration system should be implemented by a set of the system performance requirements which characterized the desired system output. University administration performance evaluation should be for the purpose of determining the extent to which actual performance fulfilled specified performance requirements. (vi) University administration performance evaluation criteria should be of different kinds including recorded observations, checklists, performance test, critical incidents, rating scales, comparison systems, timing, quantity and quality of output which should be free from causes or effects of other systems or subsystems, relevant or reliable. (vii) Positions in the university organization systems should be designed with certain principles in mind, so that the positions are appropriately structured and built or shaped. For optimum human gratifications in university administration, the activities should

demand the use of human skills, should be meaningful, should provide clear functions, should provide responsibility, should provide opportunity for natural self-satisfactions and should be compatible with cultural and social value of the society and nation.

1301. INDIAN INSTITUTE OF EDUCATION, *Development of Colleges in Marathwada University — 1980-1990*, Pune, 1980

This project was undertaken to study the status of arts, science and commerce colleges in Marathwada University and also their projected plan of development during the decade 1980-1990. The project covered all the five districts, viz., Aurangabad, Beed, Nanded, Osmanabad and Parbhani. The tool used was an exhaustive questionnaire sent to all the sixty-seven colleges of the region.

The major findings of the project were: (i) There were sixty-seven colleges of which two were government managed and sixty-five privately managed; only one was a women's college and sixty-six were mixed colleges. (ii) Thirty-two colleges had arts, science and commerce faculties, thirty-two had arts and commerce faculties, one college had arts and science faculties, six had only science, two only commerce and two only arts faculties. (iii) The media of instruction were English and Marathi at the undergraduate level for arts and commerce and English for science. (iv) The total strength of students from Class XI to postgraduate and diploma classes on 1 October 1979 was 14775 (3,005 women) for arts, 12,505 (1,928 women) for science and 20,752 (2,337 women) for commerce. The women students numbered 7270 out of 48,032 in all the colleges. According to information received from some colleges, it was seen that of 30,405 students, Scheduled Caste students accounted for 7,674, Scheduled Tribe students were 588, students from denotified and nomadic tribes were 2,148, from other backward classes were 3876 and from advanced communities were 16,119. (v) Forty-six colleges paid rent to their management. (vi) Forty-one colleges had a common-room for men, fifty-three had a common-room for women, thirty-six had auditorium, twelve had gymkhana and fifteen had cooperative stores. (vii) Out of sixty-seven colleges, fifty-one had hostel facilities. Forty-three colleges together had seats in hostels for 4,571 boys and 403 girls. (viii) While about thirty-two colleges offered courses in physics, chemistry, botany and zoology, only two colleges offered microbiology, eight offered biochemistry and one college offered geology. Thirty colleges had laboratories for physics,

chemistry, botany and zoology. Twenty-one colleges had one to five laboratory assistants, eight had five to 10, two had 10 to 15 and three had 15 to 20. (ix) Between fifty-nine colleges, there were 2,674 teachers of whom 197 were women. One hundred and thirty-two teachers had Ph.D. degree. Sixty-one colleges had trained librarians. (x) Many colleges had fewer than ten students in many subjects at the undergraduate stage. In English and Marathi, the colleges did not have more than ten students at the postgraduate level. (xi) The total income per student on an average in the Marathwada University was Rs.1,328 against an expenditure of Rs.1,475. (xii) It was seen that three colleges had fewer than fifty students, twenty-seven colleges had between 50 to 100, thirty-one colleges had 101 to 200 and five colleges had between 301 and 500. (xiii) The colleges, on the whole, suffered due to low student strength and the position was not likely to improve during the next five years.

1302. INDIRESAN, J., *Identification of Factors Facilitating and Constraining Industry-Polytechnic Collaboration*, TTTI, Madras, 1982 (UNDP-assisted)

This research project aimed at (i) identifying collaborative areas existing between the industry and the polytechnic, (ii) developing an index of the degree and quality of collaboration that existed in these areas, and (iii) identifying factors facilitating and constraining the collaboration between industry and polytechnics.

After an intensive literature survey, discussions with principals, placement officers and faculty, a fact-finding questionnaire covering major areas like (a) polytechnic's contribution to industry, (b) industry's contribution to polytechnics and (c) general aspects, was prepared and sent to all polytechnics in the country through four Regional TTTIs. One hundred and forty-two (nearly 50 per cent) of the polytechnics responded. The polytechnics were classified according to their degree of collaboration as high, medium, or low. Steps involved in arriving at this index were: (i) certain dimensions and levels of collaboration were identified and operational definitions of these dimensions and levels were arrived at through extensive discussions and (ii) weightages were assigned to each one of these levels giving a higher weightage to the polytechnic-initiated activity. This study also listed twenty-one different activities indicating various types of collaboration and obtained responses from polytechnics about their actual practices. The degree of collaboration obtained was quan-

tified and related to certain background characteristics of the institutions.

The findings of the project were: (i) Private polytechnics had a slightly better collaboration index than government polytechnics. (ii) Larger institutions with high faculty strength and student intake had higher collaboration index. (iii) Polytechnics conducting either sandwich/post-diploma or both courses had significantly higher collaboration index than polytechnics not conducting these courses. (iv) Polytechnics with industrial liaison committees had a significantly higher collaboration index than those without such committees. (v) Polytechnics from western and southern regions had a better collaboration index than those in the eastern and northern regions. This survey indicated a wide variation in the degree and profile of collaboration among various polytechnics.

As a follow-up, it was proposed to prepare intensive case studies of polytechnics so that factors responsible for high or low degree of collaboration could be identified.

1303. ISEC, *A Study of Universal Primary Education in Tumkur District (Karnataka)*, Bangalore, 1981

The objectives of the study were: (i) to find out the extent of non-enumeration, non-enrolment, non-attendance, and drop-outs at the elementary stage of education (6-14 years), differential rates of non-enrolment, non-attendance and drop-out between villages having facilities for different levels of schooling, sex-wise composition of the non-enrolled, non-attending and drop-out children, (ii) to determine Scheduled Caste and Tribe composition of the non-enrolled, non-attending and drop-out children and also socio-economic composition of the children who did not enrol, or did not attend school regularly, or who dropped out prematurely from elementary schools, and (iii) to find out the relationship between schooling facilities and incidence of non-enrolment, non-attendance and drop-outs.

The study was confined to Tumkur district. There were 3,032 villages in the district. Fifty areas including ten without schools (SLV), thirty with only lower primary schools (LPS), eight with Higher primary schools (HPS), two with higher secondary schools (HS) and four specially selected villages (SPL) formed the sample. For interviewing parents a household survey was carried out, which covered 1,500 households, thirty households per village, taking into account all the three categories of students. Again, 156 teachers, 236 leaders of panchayats

and school board members and thirty-three education inspectors and others were interviewed. The data were analysed using percentages, correlations and graphs. A school index was also correlated with non-enrolment, irregular attendance and drop-out. School index score was obtained for each school taking into consideration the facilities provided by the school.

The major findings of the study were: (i) The degree at non-enumeration was 2 per cent. (ii) Fifty-two per cent enumerators were not given practical enumeration training. (iii) Sixty-three per cent of the teacher enumerators had expressed the need for timely supply of enumeration forms. (iv) The percentage of non-enrolment was more among girls than among boys. (v) The incidence of irregular attendance was more among girls in lower primary schools while it was higher among boys of higher primary schools. (vi) The percentage of irregular attendance was more among boys belonging to Scheduled Castes and Scheduled Tribes in Classes I, II and III than among boys belonging to other castes. (vii) The incidence of irregular attendance was 63.12 per cent in households where the family size was five to eight. (viii) The reasons for irregular attendance were reluctance of the students, work at home, peer group influence, lack of interest in school work and lack of clothes. (ix) Irregular attendance was noticed equally among literate and illiterate families. (x) Ninety per cent of the families of irregular attenders came from an income bracket Rs.5000 per annum. (xi) The percentage of failure was markedly high in Class I and it decreased in Class IV. (xii) Detention ratio was higher among girls than among boys. (xiii) Detention rate was higher among Scheduled Caste and Scheduled Tribe students than among students of other communities. (xiv) Drop-out rate was the highest (70.52 per cent) in Class I. (xv) Drop-out rate among girls was higher than among boys in SLV, LPS, HPS and HS but not in SPL. (xvi) Drop-out rate significantly high among other caste communities in SLV, LPS, HPS and SPL except HS. (xvii) Drop-out rate was maximum in households with family size 5-8 in Scheduled Castes and Scheduled Tribes and other caste communities. (xv) Drop-out rate in illiterate families was thrice that of literate families belonging to Scheduled Caste, Scheduled Tribe and other caste communities. (xix) Of the families of drop-outs 95.52 per cent belonged to an income group of less than Rs. 5,000 per annum. (xx) The occupation of families of drop-outs (95.9 per cent) was agriculture. (xxi) Reasons for drop-out were: assisting in household work, tending cattle, looking after younger siblings and working on daily wages. For girls, education was coming in the way of

marriage. (xxii) Most of the drop-outs were engaged as paid labour. (xxiii) The correlation between drop-outs in Class I and school index was significant and positive and that between drop-out of Classes I to IV and school index was also significant and positive. (xxiv) Correlation between drop-out at Classes I-IV and detention at Classes I-IV was significant and positive. (xxv) On an average, three persons were available in each village to teach in NFE (non-formal education) centres. (xxvi) As far as parents' choice of subjects for inclusion in non-formal education syllabus was concerned, they gave first preference to poultry and farming and second preference to scientific agriculture. Teachers gave first choice for cottage industry and second choice for scientific agriculture. (xxvii) 83.33 per cent of the respondents indicated that 6.30 p.m. to 8.30 p.m. was the most suitable time for holding non-formal education classes.

***1304.** JAGANMOHAN, M., *An Investigation into the Existing Conditions and Developmental problems of Affiliated Colleges in Andhra University Area*, Ph.D. Edu., And. U., 1983

The objectives of the investigation were: (i) to examine the background information, staff qualifications, physical structure and facilities available in some of the affiliated colleges in rural and urban areas managed by private and government authorities under the Andhra University, (ii) to compare the enrolment at the intermediate level in private vs. government and rural vs. urban colleges over a period of ten years, (iii) to compare the enrolment at the degree level (B.A., B.Sc., B.Com.) in private vs. government and rural vs. urban colleges, over a period of ten years, (iv) to compare the total expenditure of the colleges in government and private, and rural and urban colleges over a period of ten years and also to study the sources of income, (v) to compare the scholarship granted at the intermediate and degree levels in government and private and rural and urban colleges over a period of ten years, (vi) to study the future plans in introducing new courses in affiliated colleges and modifications of the existing courses and to study the type of problems related to the financial, administrative and academic matters in the affiliated colleges.

The existing colleges in the Andhra University area were classified into private/government on the basis of the type of management and rural/urban on the basis of location. The courses considered were Intermediate, B.A., B.Sc. and B.Com. Both Telugu and English-

medium colleges were included in the sample. For these institutions a schedule was sent for collecting data covering a period of ten years.

The findings of the study were: (i) There were eighty-four affiliated degree colleges in Andhra University area. Out of them, fifty-seven were private colleges and twenty-seven were government colleges. A majority of the affiliated colleges were in urban area (67 colleges) and women's colleges were only ten in number and colleges with postgraduate courses were only nine in number. (ii) The enrolment of commerce graduates was more (18,240) than that of B.Sc. students 10,724, B.A. students 9,394 and postgraduate students 1,585. (iii) The enrolment of boys was more (2,961) than the enrolment of girls (8,698). (iv) The student-teacher ratio was 12:1. The students hostel-residents ratio was 4:1. (v) The major problems of affiliated colleges were related to teaching staff and staff appointments. (vi) The rural private colleges wanted to merge into government colleges; lack of teaching aids and of opportunities to improve their qualifications were the problems of the teachers. (vii) Financial problems could be considered from two angles, namely, the scarcity of funds even to pay salaries and scarcity of funds for developmental purposes including funds for the construction of buildings, and for meeting library and laboratory expenditure. (viii) Union elections were giving scope for local political parties and communal elements to exploit the student community for their selfish ends. (ix) Rural colleges mentioned that they did not have permanent buildings, library, playground, etc.

1305. JAIN, S.P. and KURULKAR, L., *Assessment of Vocational Training Needs of Women in Rural Areas*, NIRD, Hyderabad, 1980 (International Labour Organization and Ministry of Labour and Employment, New Delhi-financed)

The main objective of the investigation was to prepare an action plan for the development of skills of rural women to promote their employment. The specific objectives were: (i) to survey the existing vocational training facilities for women in the districts, (ii) to identify the vocations having scope for employment, and (iii) to recommend types of training programmes for the development of skills to enable women to undertake employment.

Data were collected both from primary and secondary sources for the districts of Anantapur and Kanyakumari of Andhra Pradesh and Tamil Nadu, respectively. A

sample of women drawn from different socio-economic groups was interviewed in order to assess their training needs. An inventory of the existing training infrastructure, institutional as well as production units, was made.

The study gave the following findings: (i) In Anantapur district, the existing training facilities were highly inadequate. On an average, about 1,300 women were trained annually under various programmes, the bulk of whom were oriented to agriculture, tailoring and embroidery. Keeping in view the employment and market potential, nine vocations were identified, which included silkworm-rearing, silk-reeling, woollen-blanket-weaving, tailoring and garment-making, dairying, poultry-keeping, basket-making, mat-weaving and khadi-spinning. (ii) In Kanyakumari district, on the other hand, though a considerable number of women were trained under various programmes both by the government and voluntary agencies, the training was limited to tailoring and embroidery and the coverage was not uniform. (iii) Two-ply coir-yarn-spinning, palm leaf articles, fibre products, coir-mat-weaving, tailoring and garment-making, lace-making and embroidering, dairying, poultry-keeping, safety-match-making and bee-keeping were identified as vocations having scope for employment. (iv) Keeping in view the training needs of women, such as duration, place, remuneration and vocational preferences, it was proposed to train 1,750 women annually with an outlay of Rs. 12 lakh in the above-mentioned vocations.

1306. JOSHI, P.M., *An Investigation into Organizational Climate of Higher Secondary Schools of Rajkot City*, 1980 (Sau. U.-financed)

The investigation aimed at (i) replicating Halpin and Croft's study on higher secondary schools of Rajkot city, (ii) identifying and classifying the organizational climate of these schools, (iii) constructing a profile for each school, (iv) comparing the climate of various types of schools, and (v) studying the relationship of different types of schools (sex-wise), school size, school management, location of schools and their course streams with the organizational climate.

It was hypothesized as follows: (i) Higher secondary schools would differ among themselves in the organizational climate. (ii) The schools under study would not differ from Halpin and Croft's schools among different climate categories. (iii) The organizational climate of government schools and private schools would differ. (iv) The climate of schools for boys and that of schools

for girls would differ. (v) The climate of schools of different size and different levels of performance would differ. (vi) The climate of a school with science stream and that of a school with general stream would differ.

Fourteen higher secondary schools of Rajkot city were studied. The OCDQ, personal interview with the Rajkot District Education Officer and the records from his office were used.

Eight dimensions of organizational climate given by Halpin were found out for all the schools. The fourteen schools were classified into six organizational climates given by Halpin and Croft, namely, open climate, autonomous climate, controlled climate, familiar climate, paternal climate, and closed climate.

The major findings of the investigation were: (i) All categories of climate were available in the schools. The number of higher secondary schools with closed climate was maximum, the familiar climate type schools ranked second and the number of schools with controlled climate was minimum. (ii) There was no difference with respect to the category of organizational climate between government school and private school, high or low performing schools, those with varying size, location and with different streams.

1307. KASINATH, H.M., *A Critical Study of the Problems of Wastage and Stagnation in Primary Education in Karnataka State*, Ph.D. Edu., Kar. U., 1980

The main objectives of the study were: (i) to assess the extent of wastage in the schools under study with reference to the basal sample and the relevant sub-samples, (ii) to compare the wastage indices for relevant sub-groups based on sex, school type, location and educational level, (iii) to assess the extent of stagnation in the schools under study with reference to basal sample and the relevant sub-samples, (iv) to compare the stagnation indices for relevant sub-groups based on sex, school type, location and educational level, and (v) to identify the group of causal factors of wastage and stagnation classified under four major categories, namely, instructional, teacher, pupil and family.

Using proportional stratified sampling technique sixty schools out of 1,190 primary schools and 5 per cent of the total population from each taluka of Bellary district were selected. The tools administered were a school information sheet, pupil information sheet, interview schedules for parents and interview schedule for teachers. The data were analysed employing analysis of

variance, chi-square test and rank correlation.

The major findings of the study regarding the causes of wastage and stagnation in relation to instructional variables were: (i) Chronological age of the school, space facility, the school building and furniture did not have significant effect on its rate of wastage and stagnation. (ii) The rate was higher in double-shift than in single-shift schools. (iii) There was relationship between availability of instructional facilities in a school and the rate of wastage and stagnation. (iv) The rate of wastage and stagnation was negatively associated with co-curricular activities provided in the schools. Causes identified in relation to teacher variables indicated: (v) The age of teachers, teaching experience and their income did not have any significant effect on the rate of wastage and stagnation. (vi) The qualification of teachers and the rate of wastage and stagnation were related. (vii) The rate of wastage and stagnation was positively related to the pupil-teacher relation. As regards causes in relation to pupil variables: (viii) The academic performance of stagnation cases was superior to that of wastage cases. (ix) Wastage cases had lower attendance in schools than stagnation cases. (x) The stagnation cases were more interested in education than the wastage cases. (xi) More wastage cases than stagnation cases perceived their teachers as doing a good job. (xii) More stagnation cases assisted their parents in educationally relevant activities and perceived their parents as attaching higher significance to education. (xiii) Cases of stagnation were more interested in holding leadership assignments in schools. With reference to family variables: (xiv) There were more wastage than stagnation cases among small-sized families, families of lower income and educational level, families engaged in occupations like agriculture, labour or artisanship, families which had suffered the loss of one or both parents or the child was a first born or only child. (xv) The parents of a relatively larger number of stagnation cases were younger in age than the parents of wastage cases. (xvi) Parents of stagnation cases were more satisfied with the academic performance of their children and the physical facilities in schools than those of wastage cases. (xvii) The parents of wastage and stagnation cases did not differ significantly in regard to perception of social influence. (xviii) More parents of wastage cases than of stagnation cases perceived the burden of the cost of education as heavy. (xix) More parents of stagnation cases than those of wastage cases perceived the need for educating their children as greater.

of Educational Administration and Finance in the State of Uttar Pradesh, Ph.D. Edu., Avadh U., 1981

The main purpose of the study was to have a critical examination of the development and expansion of elementary, secondary, higher, adult and technical education. The development and expansion of administrative set-up in the wake of rise in enrolment and number of educational institutions was also examined and the impact of rapid expansion on the quality of higher education was also studied.

Growth and expansion of education at different levels and the administrative set-up were studied with the help of statistics collected from the reports of different committees and commissions and the government records and annual reports on the progress of education. Qualitative aspects of education were studied with the help of the data collected through questionnaires filled up by forty-eight principals, 108 heads of departments, 268 teachers and 362 students.

The main findings of the study were: (i) There had been a very rapid increase in enrolment of students at all levels and in all types of educational institutions. (ii) During the post-Independence period there had been corresponding increase in the expenditure on education as well. (iii) To ensure proper teaching, the number of teachers had also been raised and there had been no appreciable change in the teacher-pupil ratio over the years. (iv) The strength of the supervisory staff in the Directorate of Education had also been raised considerably. (v) Prior to Independence the Chief Secretary looked after the problems connected with education in addition to his various other duties. A separate Ministry of Education to look after the development of education was set up thereafter. (vi) There had been considerable increase in the expenditure on programmes for adult education. (vii) As regards qualitative aspects it was observed that at higher level, physical facilities such as buildings, equipment, laboratories and libraries needed improvement. (viii) The courses of study needed revision. (ix) A majority of the teachers, heads of departments and principals felt that there was need for reform in the system of examination. (x) Periodic assessments were suggested in place of annual examinations. (xi) The teachers felt that there was need for improvement in their working conditions. Their workload was heavy. Their pay-scales sanctioned by the UGC in 1973 needed revision because of the rather rapid rise in prices over the years.

1308. KAUR, S., *A Critical Study of the Organization*

1309. KAUSHIK, S.P., *A Study of the Dimensions of*

Administrative Leadership in relation to Group Acceptance and Some Other Educational Aspects in the Colleges of Meerut University, Ph.D. Edu., Meer. U., 1979

The objectives of the investigation were: (i) to describe the administrative leadership of college principals in terms of significant patterns of real administrative behaviours, (ii) to ascertain their administrative behaviour as it ought to be in the view of the staff members, (iii) to analyse the relationship that might be existing between the real administrative behaviour and the ideal administrative behaviour of principals, (iv) to study the significant patterns of administrative behaviour of college principals with regard to educational factors such as subject faculties, age and role status, (v) to study the significant patterns of administrative behaviours of rural-urban and male-female college principals, (vi) to analyse the relationship between real administrative behaviour, ideal administrative behaviour, real-ideal discrepancy and acceptance of the principal by the group of staff members, (vii) to identify factors that lay at the back of the emerging patterns of the administrative behaviour of principals, and (viii) to analyse the significant patterns of administrative behaviour of the most acceptable and the least acceptable college principals.

The hypotheses formulated were: (i) The administrative behaviour of college principals might be described in terms of certain significant trends of behaviours and that these unitary critical behaviours might be combined into broad categories yielding certain reasonably well defined and independent dimensions. (ii) These behavioural patterns might be determined by certain background factors operating in or outside colleges. (iii) The real administrative behaviours might not conform to the ideal administrative behaviour of college principals. (iv) The acceptance of a principal as leader in a group of college teachers may be a function of certain characteristic dimensions of his educational leadership. (v) The coincidence of real and ideal administrative behaviours was related to the acceptance of the principal by the group. The sample consisted of fifty-nine colleges affiliated to Meerut University. The study used Principal's Behaviour Description Questionnaire (PBDQ), Background Factors Description Questionnaire (BFDQ) and Leadership Acceptance Questionnaire (LAQ). The study applied t-test and chi-square test for data analysis.

The findings of the investigation were: (i) The principals were highly ego-centric, interactive, flexible and achievement oriented. (ii) In the opinion of the

teachers, college principals should be less ego-centric, authoritarian and inertia-prone, and more extra-centric, interactive, democratic, progressive, flexible, achievement-oriented and moderately tolerant. (iii) The patterns of real and ideal administrative behaviour were quite different from each other. (iv) On extra-centric, interactive, democratic, progressive, flexible, achievement oriented and tolerant dimensions, the teachers wished the administrative leadership to attain a higher level than the level they exhibited currently. (v) The teachers of different faculties viewed their principals uniformly highly ego-centric. (vi) The administrative behaviour of urban principals on interactive, progressive and achievement-oriented dimensions was rated higher than that of their rural counterparts. (vii) Ideal administrative behaviours on extra-centric, interactive, democratic, inertia-prone, progressive, achievement-oriented and tolerant dimensions were independent of group acceptance. (viii) Group acceptance went contrary to real administrative behaviours on ego-centric, inertia-prone and authoritarian dimensions, and went with extra-centric, interactive, democratic, progressive, flexible, achievement-oriented and tolerant dimensions. (ix) Real-ideal discrepancy was negatively related to group acceptance for all the dimensions. (x) Acceptance of the administrative leadership by the teachers might be a function of administrative behaviour on extra-centric, interactive, democratic, progressive, flexible, achievement-oriented and tolerant dimensions. (xi) Pressure groups among teachers, maintenance of law and order in the college, one's own concept of administration, and prevailing general atmosphere in society, were some of the important background factors affecting the administrative behaviour of the principal.

1310. KHAN, Q.U., *Student Wastage in Engineering Education, IAMR, Working Paper No. 4, 1977*

The objectives of the study were: (i) to assess the magnitude of the drop-out from the degree and diploma level courses of technical education, (ii) to assess stagnation and identify the points of stagnation in these two course of technical education, (iii) to identify the course of years where maximum difficulties were faced by students in terms of repetition and drop-outs, and (iv) to estimate year-wise proportions of pass-outs from a particular cohort.

For study, seventy-nine engineering colleges and eighty-four polytechnics (diploma-level education institutions) were selected. Data were collected through

the use of questionnaire. The cohort years selected for the two courses of engineering education were 1961-62, 1963-64 and 1965-66. Percentages were computed.

The findings of the study were: (i) Very high drop-out rates were observed in polytechnics. Though the drop-out rates in engineering colleges were not low, they were less than 50 per cent of those in polytechnics. (ii) The dayscholars dropped out comparatively more than their counterpart boarders. (iii) The drop-out rates remained unchanged over the period under study as well as over one or two quinquennia as revealed by the earlier studies. (iv) Very wide variations were observed in the drop-out rates of individual institutions both at the degree and diploma levels; some institutions had practically no or very negligible dropouts but in some others more than 50 per cent of their initially admitted students left the institutions without completing. (v) The stagnation rates for the diploma course were also higher than those for the degree course in spite of the fact that the latter course had a longer duration. In absolute terms, the stagnation rate for the engineering degree course for the period under study combined, was only 1 per cent while the stagnation rate for the diploma course was as high as 17.9 per cent. (vi) Institution-wise, there were very wide variations in the stagnation rates for both the diploma and the degree courses. (vii) Although the best students were admitted to technical education institutions, failure was one of the main reasons for students to leave these institutions without completing the course, suggesting that either the curriculum content was not well balanced or the selection of students was not done on a rational basis.

- 1311. KHANNA, I. and VERMA, P.L.,** *Survey of Research in Education in Rajasthan*, Directorate of Primary and Secondary Education, Bikaner, 1976

The study aimed at surveying the researches on education in Rajasthan. A list of all the available researches on education and related to education completed at master's, doctorate and project level in Rajasthan was prepared. An attempt was also made to abstract the available researches. These studies were divided under different areas. Each area was dealt with separately in detail.

The study gave the following findings: (i) Researches on education began from 1953 at the master's level at Vidhya Bhawan Teachers Training College, Udaipur. (ii) In all, 673 M.Ed. dissertations were completed from 1953 to 1974. Of these, 72.36 per cent of M.Ed. dissertations were completed at the University of Rajasthan,

Jaipur. The contribution of non-governmental institutions was 89 per cent; of these 42.25 per cent of the M.Ed. dissertations were completed at Vidhya Bhawan Teachers Training College, Udaipur, and 25.5 per cent of the M.Ed. dissertations were completed at Gandhi Vidhya Mandir Teachers Training College, Sardarshah. (iii) A majority of the M.Ed. dissertations were in the area of guidance. There were seventy-eight M.Ed. dissertations in the area of teachers' training. (iv) The first Ph.D. in education was awarded in 1963, by the University of Rajasthan, Jaipur. In all, nineteen Ph.D. theses were completed during the period 1963 to 1974. There was not a single Ph.D. on education from Jodhpur University, Jodhpur. There were twelve Ph.D. theses from the University of Rajasthan, Jaipur. A majority of the doctorate research work was in the area of personality. (v) There were twenty-five research studies conducted at the State Institute of education, Udaipur. Four research studies were conducted at the Secondary Board of Education, Ajmer. (vi) A majority of the researches were of survey type. Ninety-five per cent of the M.Ed. dissertations adopted the survey method. A few researches adopted the experimental method. (vii) The available researches could be divided into twelve areas. These were: philosophy of education, curriculum and textbooks, teaching and teachers' behaviour, personality, measurement and evaluation, correlates of achievements, counselling, guidance, educational administration, teacher training, school administration and sociology of education.

- 1312. KHERA, D.S.,** *A Study of Organizational Climate and Educational Environment of Sainik Schools*, Ph.D. Edu., Pan. U., 1980

The major hypotheses of the study were: (i) There were no significant differences in the organizational and educational environments of all the Sainik schools. (ii) The variables of the principal's behaviour were more dominant than the variables of the teacher's behaviour in accounting for the organizational climate. (iii) The intellectual, physical, and other psychological needs of students were being satisfied by the existing environment of the Sainik schools. (iv) There was a positive correlation between the need and press variables. (v) The educational environment had a positive relationship with the number of boys who joined the National Defence Academy, Khadakwasla, from a particular school.

The sample of the study included ten staff members, selected through purposive sampling, from all the seven-

teen Sainik schools functioning in the country, and forty boys from each school studying in Classes VIII to XI, selected randomly. Data were collected with the help of Organizational Climate Description Questionnaire (OCDQ) by Halpin and Croft, and School Activity Index and School Characteristics Index both developed by the investigator. Statistical techniques of Thomson's u-1 index, product moment coefficient of correlation, measures of central tendency, standard deviation, standard errors of mean and standard deviation, t-ratios and factor analysis by the principal axes method were used for the purpose of data analysis.

The major findings of the study were: (i) There were wide variations in the educational environment and organizational climate of different Sainik schools. (ii) The principals and the teachers of different Sainik schools differed significantly in their behaviour variables. (iii) Results on the organizational climate of all the schools revealed that the intensity of these variables differed significantly from school to school. (iv) In seven schools, the variables of the principal's behaviour were more dominant than those of the teacher's behaviour; in six schools, these were equal, and in four schools, the teacher's behaviour variables were stronger. (v) The variables of educational environment revealed that no two schools tallied with each other and that they differed significantly on need and press variables, which could be due to the fact that each school had institutionalized various types of public appearances, which were displayed through their students. (vi) Only in a few schools certain needs of the boys were satisfied by the school and it could be inferred that the Sainik schools failed to create the educational environment and showed no significant bearing on the number of boys who had joined the National Defence Academy from a particular school. (vii) The schools which had a high educational environment also exhibited better results in the Higher Secondary Examinations.

- 1313. KHOBRADE, N.T., MIRZA, S.A. and DESHPANDE, S.B.,** *Problem of Drop-outs in Polytechnics*, Government Polytechnic, Dhule, 1981

The objective of the study was to estimate the problem of drop-outs in polytechnic vis-a-vis the quantitative output, the pass rate.

The study was conducted by scanning results and attendance records for the years 1972-73, 1973-74, 1974-75, 1975-76, 1976-77, 1977-78. Descriptive methods

were used and the results were presented in the form of graphs, percentages, and raw data.

The findings of the study were: (i) The drop-out rate ranged between 76 per cent and 50 per cent and there was a consistent trend of improvement since 1973-74. (ii) The overall pass rate ranged between 33 per cent and 50 per cent and in 1979, the pass rate was maximum (80.3 per cent). (iii) The pass percentage in three years ranged between 12.8 and fifty. (iv) The drop-out rate was highest in first and second semesters, and lowest in fifth and sixth semesters. (v) Free mobility of students from one polytechnic to another camouflaged the drop-out rate. (vi) The drop-out rate was more during 1972-73, 1973-74 and 1974-75.

- 1314. KHOBRADE, N.T., SULE, S.B. and BARHATE, G.R.,** *Employment Avenues for Diploma-holders in Engineering*, Government Polytechnic, Dhule, 1980

The objectives of the study were: (i) to find out employment opportunities for the diploma-holders in civil, mechanical and electrical engineering, and (ii) to identify opportunities in the private sector and the public sector in terms of requirements of experience.

The study was conducted by carrying out content analysis of advertisements in two leading newspapers, The Times of India and the Indian Express, during a period of six months. In all, 1,286 advertisements, 951 from The Times of India and 335 from the Indian Express, were analysed. The data were classified in terms of civil, mechanical and electrical engineering disciplines and also with regard to the expected amount of experience. The percentages and the bar charts were the main modes of representing the data.

The findings of the study were: (i) In The Times of India 63.70 per cent jobs were for mechanical, 21.80 per cent for electrical and 14.50 per cent for civil engineering diploma-holders; corresponding percentages in the Indian Express advertisements were 63.10, 26.40 and 10.50. (ii) The percentages of jobs advertised by the government/semi-government/undertakings were between 5 and 13. (iii) About 25 per cent of the advertisements asked for at least three years' experience, and in about 65 to 70 per cent the requirement was of more than three years' experience, usually six or seven years. (iv) Developmental programmes launched by the government provided the largest employment opportunity to fresh diploma-holders. (v) The private organizations, except a few, did not mention the salary/total emoluments of-

ferred. (vi) The percentage of jobs advertised wherein equivalence to the degree was specified was only 10 to 12 in general. (vii) No advertisement mentioned A and B Certificate examination of Institution of Engineers (India) as a requirement.

1315. KULKARNI, A.A., *Needs Fulfilment of Organizations and Socio-economic Needs Fulfilment of the Employees through the Part-time Diploma Programmes Conducted at the Government Polytechnic, (1972 to 1977)*, Ph.D.Edu., Poona U., 1982

The objectives of the investigation were: (i) to study the role of part-time Engineering Diploma Programme in fulfilling the needs of the organizations as well as the socio-economic needs of the personnel who have completed part-time Engineering Diploma Course at the Government Polytechnic, Pune, from 1972 to 1977, (ii) to study the part-time Engineering Diploma Programme as an educational programme, conducted at the Government Polytechnic, Pune, and (iii) to study the administration of part-time Engineering Diploma Programmes conducted in western region, i.e., in Madhya Pradesh, Gujarat and Maharashtra, with special reference to the part-time Engineering Diploma Programme conducted at the Government Polytechnic, Pune.

The study was conducted on 70 per cent civil, 76.92 per cent mechanical, 84 per cent electrical P.T. Diploma-holders, all teachers, 40 per cent principals and 83.5 per cent personnel managers. An attempt was made to collect information and analyse it for arriving at definite conclusions. Four questionnaires were prepared to collect data: a questionnaire for part-time Engineering Diploma-holders, a questionnaire for Personnel/Administrative Managers under whom the part-time Engineering Diploma-holders were directly or indirectly working, a questionnaire for teachers teaching part-time Engineering Diploma classes at the Government Polytechnic, Pune, and a questionnaire for the principals conducting and administering the part-time Engineering Diploma Programmes in the western region, i.e., in Maharashtra, Gujarat and Madhya Pradesh. Interviews were held with part-time Engineering Diploma-holders. Personnel managers and officers of some of the key organizations were selected for interview. Discussions were also held to judge the views and reactions of the teachers teaching part-time Engineering Diploma classes.

Some of the important findings of the investigation

were: (i) More than 64.38 per cent students working in the private sector and the semi-government sector passed P.T.E.D., however, both public and private organizations facilitated their employees to complete the course satisfactorily. (ii) After completing the P.T.E.D. course 32.56 per cent students belonging to the private sector secured promotion while 24.45 per cent from the public sector were promoted; rigidity to promotional rules was felt in the public sector. (iii) Out of 135, eighty-two P.T.E.D. holders got promotion and got their organizational status elevated, they got their previous designations changed, i.e., from skilled craftsmen to Junior Engineers, Supervisors, etc.; the average age of P.T.E.D. holders was thirty-five years while that of regular diploma-holders was nineteen years. (iv) After completing the P.T.E.D., 47.84 per cent got married. (v) Only 8.88 per cent students belonging to backward, ST/NT/DNT/castes passed P.T.E.D., indicating that there was need to develop the potential available among the P.T.E.D. students of reserve category by making provision for reserve quota for admission to P.T.E.D. course. (vi) 86.58 and 85.1 per cent students joined P.T.E.D. course for improving the socio-economic status and chance of internal promotions, respectively. (vii) 79.18 per cent students were of the opinion that education during P.T.E.D. developed rational thinking on any given problem while 75.48 per cent said that they could develop their self-confidence and knowledge of the subject matter through P.T.E.D. course. (viii) 88.06 per cent P.T.E.D. holders said that the P.T.E.D. course enabled them to understand the fundamental principles of engineering. (ix) 55.50 per cent P.T.E.D. holders considered their expectations partially fulfilled; 31.71 per cent felt they were not satisfactory whereas 12.58 per cent felt their expectations were completely satisfied.

1316. KULSHRESTHA, N.K., *An Approach to the Appraisal of the Performance of College Teachers in Rajasthan Educational Service*, The HCM State Institute of Public Administration, Jaipur, 1977

The study attempted to suggest an approach to the formats of annual performance appraisal of college teachers of Rajasthan Educational Service. The investigator adopted a systems approach to appraisal. Instead of appraising the college teachers, the performance of a college unit was appraised.

The important conclusions of the study were: (i) The key areas of college where performance could be judged

were academic performance—teaching and research, curricular and extra-curricular activity and extension services. Extension services represented an area of social change. (ii) The points to be taken into consideration in appraising teaching performance were quantity and quality of teaching, contribution to library and teaching insights which reflect the effort expended. (iii) While appraising academic growth of a college teacher, the following factors might be incorporated in the departmental formats: (a) the number of books reviewed, (b) the number of papers/articles published with the names of journals, (c) the number of articles published after acquiring Ph.D., (d) whether he had been awarded Ph.D./was doing Ph.D. If he had been awarded Ph.D., whether the thesis was published, (e) how the publication of Ph.D. thesis had been financed — personal/ICSSR grant/publisher, (f) the papers read and contributed in seminars, (g) seminars, workshops, summer schools directed (for senior persons only), (h) seminars attempted at his own cost, (i) membership of professional societies, etc. (iv) In appraising the potential of college teachers, the departmental format might incorporate the following points: (a) attitude adopted toward the principal during crisis in the college, (b) his specific contribution by way of suggestion as a faculty member or in charge or a member of committee formed, (c) any innovative idea given which might increase efficiency or economize college administration, (d) any practicable suggestion given for furtherance of research and modification in RES rules, (e) in the case of a new college, his contributions to its growth and development, (f) his specific contribution to social service — NSS and national calamities, and (g) his assistance in building the image of the institution. (v) In appraising the college principals, the following areas need to be incorporated in the proforma: (a) management of growth of the institution in terms of population, (b) faculty development and research, (c) innovation in administration in administrative procedures, information systems, and conduct of examination, (d) management of crisis, (e) college environment as reflected by academic, extra-curricular and extension activities and discipline, (f) stability in organization as reflected by better human relationships in the college, (g) building the image of the institutions, (h) proper communication system and grievance procedure, and (i) organizing ability in the case of a new college.

1317. KUMAR, D., *A Study of Some Identifying College Characteristics and Teachers' Personality*

Needs in relation to Organizational Climates of Colleges of Haryana State, Ph.D. Edu., Mee.U., 1978

The objectives of the study were: (i) to find out whether the colleges of Haryana differed among themselves with regard to their organizational climates, (ii) to identify the colleges with open and closed climates, (iii) to find out on what aspects of teachers' behaviour and principals' behaviour these colleges differed significantly from one another, (iv) to find out how the location, sex, size and type of management of a college were related to the organizational climate, (v) to investigate the relationship between the personality needs of the teachers and the organizational climate, (vi) to find out if any difference existed in the organizational climate between men and women, urban and rural, big and small, and private and government colleges, and (vii) to find out the relationship between the organizational climates of the colleges and pupils' achievement.

The hypotheses formulated were: (i) There was no single pattern of organizational climate in the colleges of the State of Haryana. (ii) The location of colleges was not related to their organizational climate. (iii) The faculty size of the colleges was not related to their organizational climate. (iv) There was no relationship between the sex of the faculty members and the organizational climate of colleges. (v) The type of management and the organizational climate of colleges were not related. (vi) The climate profiles of the colleges having the same climate did not have one to one congruence with regard to the dimensions of the organizational climate. (vii) The faculty members of rural colleges significantly differed from the faculty members of urban colleges with regard to their perception of teachers' behaviour and principal's behaviour. (viii) There was no agreement between the faculty members of big colleges and those of small colleges with regard to perception of teachers' behaviour and principal's behaviour. (ix) Statistically significant difference existed between the perception of the faculty members of government colleges and those of private colleges regarding the leadership behaviour of the principal and teacher's behaviours. (x) The faculty members of male colleges and those of women colleges perceived the leadership behaviour of the principal and teachers' behaviours differently. (xi) Personality needs of the teachers were not related to the organizational climate of a college. (xii) Achievement indices of colleges were not related to their organizational climates. (xiii) Correlation between the achievement index and the organizational climate was not influenced by sex and size

of the faculty members, types of management and location of the colleges. The study was conducted on 300 teachers, selected through stratified sampling technique. Data were collected through Organizational Climate Description Questionnaire, Meenakshi Personality Inventory, Tabulation Sheets of Universities, and Identifying College Characteristics Blank. The t-test was used for testing the hypotheses.

The findings of the study were: (i) The colleges of Haryana differed among themselves with regard to their organizational climate. (ii) The rural colleges had more open-type climate than the urban colleges. (iii) The faculty size of a college did not affect the organizational climate. (iv) The private colleges had more open-type of organizational climate than the government colleges. (v) Sex did not affect the organizational climate. (vi) Irrespective of the location, size and sex of the faculty members and the type of management of the colleges, the teachers' group behaviours were uniform and so were the principals' leadership behaviours. (vii) All the dimensions (except thrust) of the organizational climate were positively related to the students' achievement index.

- 1318.** KUMARI, S., *Students' Perceptions of the College Environment as related to Their Satisfaction in the Colleges of Haryana*, Ph.D. Edu., Kur. U., 1977

The objectives of the study were: (i) to explore the question of individual environment interaction in the colleges, (ii) to find out the relationship between the perceived discrepancies between the self and the various aspects of college environment and dissatisfaction, and (iii) to assess the sources of conflicts or strains within the college environment. The sample comprised 1,850 students of third degree class — part II and part III — from nineteen colleges of Haryana. The tool used to describe college environment and assess campus climates, as well as students' satisfaction was Transitional Analysis of Personality and Environment (TAPE) by Lawrence A. Pervin and Doueld B. Rubin, adapted to Indian conditions.

The major findings of the study were: (i) There were large discrepancies between the way students saw themselves and the various parts of the college environment, namely, students, faculty and administration, etc. (ii) The students were greatly dissatisfied with other students and the administration. Every student considered himself an ideal student and the college and other as-

pects of college environment far from his ideal self. (iii) Most of the students felt out of place while in the college. They felt uncomfortable with other students in the college. They did not find their value similar to their faculty and they did not agree to the rules and regulations of their college administration. (iv) Most of the students perceived their principal as very strict and staff members very partial. (v) Most of the students demanded jobs rather than degrees. They were not satisfied with learning which was theoretical and which had little relationship with their future careers.

- 1319.** LINA, Sr., *Development and Evaluation of Low-cost Indigenous Food Mixes for Pre-schoolers*, Ph.D. Home Science, SVU, 1980

The main objectives of the study were: (i) to know about the socio-economic background of the community, (ii) to assess the incidence of malnutrition among pre-school children, (iii) to acquire information regarding the food habits and dietary pattern prevalent in the community, (iv) to examine the weaning practices and the use of supplementary food prevailing in the community, (v) to estimate the nutrient intake and therefrom the nutrient gap existing among the children at the weaning age, and (vi) to gain knowledge about the home makers' food beliefs and food preferences in normal and special conditions. The second phase of the investigation involved the formulation of food mixes and testing them for quality and shelf-life.

The oral questionnaire method was used for the dietary survey. A total number of 230 families with a daily per capita income of Rs.2 or less, were chosen for the study selecting ten families per village from a representative sample of twenty-three villages (10 per cent of the total number of villages in the district of Trichur). For the second phase of the study six low-cost indigenous food mixes for tiny-tots (LIFT) were formulated and tried out.

The major findings of the study were: (i) Of the total number of pre-school children admitted to the hospital between January 1972 and December 1976 from all over the district, the incidence of deficiency diseases was not of a high order. The highest occurrence was that of PCM, the yearly prevalence of which ranged from 1.03 to 2 per cent. (ii) The age-wise distribution of deficiency diseases indicated that the highest prevalence of PCM was found in the second year of childhood. This might have been due to the highest rate of weaning taking place in the age group of 18 to 24 months and the inadequate use

of supplementary foods in addition to the highest prevalence of infectious diseases. (iii) The age group of 0 to 12 months showed a low prevalence of PCM. (iv) The yearly prevalence of nutritional anaemia ranged from 0.29 to 0.76 per cent. (v) Regarding the yearly incidence of vitamin deficiencies, the peak prevalence was observed in 1975, whereas it was of the lowest degree in 1974. (vi) When the age-wise distribution of the occurrence of vitamin deficiencies was considered, it was seen that it was minimum during the fourth year of childhood and the maximum during the fifth year. (vii) The average family size observed was 6.9, which was larger than the national family size and that of Kerala. (viii) The literacy level recorded in the population surveyed was 74 per cent as against 60.42 per cent observed at the State level and 29.45 per cent recorded at the national level. (ix) Regarding the expenditure pattern, 82 per cent of families were spending between 70 to 90 per cent of their total income on food. (x) Almost all the families surveyed consumed cereals as the major item for the three principal meals. A few families (3 per cent) used cereals even for snacks. (xi) Breast-feeding was commonly practised by the mothers up to the age of two years. Supplementary foods were found to be introduced as early as four months of age. (xii) Subsequent pregnancy seemed to be the most common cause for weaning (79 per cent). (xiii) The death rate among the pre-school children in the families studied was highest during infancy (0-1 year). Of the total number of deaths that occurred during the period, still births formed a fairly high proportion (16 out of 59 cases). (xiv) Gastro-intestinal disorders were the most important cause of death during the first year. (xv) The food mixes possessed physiological tolerance and were well-accepted by children. (xvi) Children on the supplemented diets registered significantly greater growth and serum protein increase and better nitrogen retention than those on control diet.

- 1320.** LOGANATHAN, V., *State and Higher Education: Financing Collegiate Education with special reference to Arts and Science Colleges in Tamil Nadu*, Ph.D. Eco., Madras U., 1981

The main aims of the study were: (i) to calculate the unit cost for pre-university, undergraduate and postgraduate students, (ii) to arrive at the amount of subsidy for students, and (iii) to examine the present system of financing from the efficiency and equity points of view.

The aided (private) arts and science colleges in Tamil Nadu (N=138 in 1976-77) offering pre-university, degree/

postgraduate courses were considered for the study. A non-proportionate stratified random sample of thirty colleges was selected, the stratification being made on the basis of size. Required data were collected from the financial statements of the colleges, government publications, the schedules specially canvassed to be administered to students and from the data collected through the state sample of National Sample Survey. Only the direct expenditure was considered to calculate the unit cost, the capital costs and rent were not considered. The cost was computed on the basis of the old scales of pay and not on the revised UGC scales of pay. The average recurring cost per student consisted of the teachers' cost, general expenditure and special fees. The subsidy in the tuition fee structure was calculated for different levels of study by measuring the difference between recurrent cost and the fees levied at various levels. The net subsidy enjoyed by families under different income groups was also computed, by deducting the tax amount paid from the implicit subsidy.

The main findings of the study were: (i) The average recurrent cost for P.U.C. humanities was Rs. 546 and for sciences Rs.738. For B.A.: English Rs.2683, Tamil Rs.4155; history Rs.2188; economics Rs.2294; philosophy Rs.2560; co-operation Rs. 2771; business administration Rs.3682. For B.Com.: Rs.1536. For M.A.: history Rs.1536, economics Rs.1435; philosophy Rs.1921; English Rs.2275; Tamil Rs.2517; social work Rs.2711. For B.Sc.: mathematics Rs.2735; physics Rs.3519; chemistry Rs.2972; zoology Rs.3496; botany Rs.3520; statistics Rs.2068; home science Rs.3066; rural development Rs.4484. For M.Sc.: mathematics Rs.3260; chemistry Rs.3489; botany Rs.10552; zoology Rs.3603; statistics Rs.5020; physics Rs.5213. (ii) The average unit private costs without tuition and special fees were for P.U.C. Rs.615; B.A. Rs.2448; B.Sc. Rs.1607; B.Com. Rs.1291; M.A. Rs.1416; M.Sc. Rs.3449 and M.Com. Rs.1105. (iii) Very few poor people used higher education facilities provided in aided colleges.

- 1321.** MAHANT, G.V., *Study of Administrative Behaviour of High School Principals in Central Gujarat*, Ph.D. Edu., MSU, 1979

The major objectives of the investigation were: (i) to develop and standardize a tool to evaluate administrative behaviour of secondary school principals, (ii) to develop procedures to evaluate effectiveness of the administrative behaviour of school principals, (iii) to study the relationship between the administrative behaviour

of principals and pupils' control ideology and some personality traits of teachers, (iv) to find out the relationship between principals' perceptions of their own administrative behaviour and the perceptions of the same of teachers of their schools, and (v) to study the effect of some personal variables like age, sex, qualification, etc., on the administrative behaviour of school principals.

The sample consisted of 277 secondary schools selected from three representative districts of Gujarat on a stratified proportional random basis and 1,084 teachers working in these schools. The research tools used consisted of Administrative Behaviour Description Questionnaire developed by the researcher, the OCDQ developed by Halpin and adopted by Gandhi, the Pupils' Control Ideology Measurement Tool developed by Willower, Eidell and Hoy and adopted by Gandhi, 16 P.F. Questionnaire of Cattell, and Work Analysis Form devised by Stogdill and Shartle. Chi-square test, t-test, F-test and product moment coefficient of correlation were some of the statistical techniques used for data analysis.

The major findings of the study were: (i) About 35 per cent of the sampled schools belonged to most effective type of administrative behaviour whereas about 37 per cent belonged to least effective category. (ii) Sex, age and experience did not influence administrative behaviour. (iii) School size, management type, location or advanced status of the place had no influence on the effectiveness of administrative behaviour. (iv) The teachers' and the principals' perceptions did not show relationship with the administrative behaviour. (v) The schools having open climate had more effective administrative behaviour than the schools having closed climate. (vi) The principals showing effective administrative behaviour were less dogmatic than those with less effective administrative behaviour. (vii) The schools with effective administrative behaviour and those with least effective administrative behaviour differed significantly in the degree of pupil control ideology. (viii) The personality of the teachers was significantly related to their perception of the effectiveness of the administrative behaviour of their principals.

1322. MAITRA, T., DEY, B., and BHATTACHARYA, N., *An Enquiry on the Distribution of Public Education and Health Services in West Bengal*, Research and Training School, ISI, Calcutta, 1972

The main aim of the survey was to assess the distribu-

tion of benefits of the two most important public services, viz., education and health, among the various sections of the population in rural and urban areas of West Bengal. Data were collected from 959 rural and 766 urban sample households by interviewing the heads or other suitable informants. The sample of households in West Bengal canvassed in the 18th Round of the National Sample Survey for the enquiry on Population, Births and Deaths through Schedule 12 was utilized in selecting the present sample of households. The design was stratified, two-stage, with villages and households as the first and the second stage units in the rural sector and urban blocks and households as the first and the second stage units in the urban sector. In each sector, there were four independent and interpenetrating subsamples, which could throw up independent and equally valid statistical estimates. An interview schedule was canvassed.

The findings of the survey were: (i) Between the rural and the urban sectors, the rural population was favoured by the award of free-studentship at both the primary and the secondary levels. However, the urban population had greater facilities of free treatment in the outdoor departments of hospitals, etc. and the same was also true about indoor treatment. (ii) The distribution of primary students over fractile groups was nearly egalitarian for the State as a whole; in the rural sector, the distribution favoured the richer groups to a small extent while the reverse was true for the urban sector. As regards the distribution of free-studentships, it favoured the rich to some extent in the rural sector but it favoured the poor to a marked extent in the urban areas; for the State as a whole, the middle groups were slightly favoured at the expense of the lowest and the highest ones. (iii) Regarding secondary education, the distribution of students favoured the rich in both the sectors, particularly in the rural; the distribution of free-studentship favoured the rich in the rural sector and the poor in the urban sector, while the State-level distribution was not far from egalitarian. (iv) The public education and health services served to reduce disparities in the level of living; the distribution was more egalitarian than that of consumer expenditure. However, we were far behind our national goal of universal education of all children up to the age of 14 years.

- *1323. MATHUR, R.K., *Statistics of Women's Education: Their Sources and Limitations*, 1978 (ICSSR-financed)

The objectives were: (i) to review, separately for each

enumerated source, the details regarding nature, scope and limitations of the statistics collected, publications issued, and (ii) to provide suggestions for the improvement of data collected.

Details of the information obtained through the 1971 Census, the census questionnaire as well as the difference as regards the earlier ones, statistics maintained by the Ministry of Education, the forms and organization for collecting it, the publication on it and the deficiencies were analysed; statistics on higher education compiled by the UGC in the form of annual reports and the surveys on higher education were also referred to. The National Educational Surveys by the NCERT as well as on wastage and stagnation in primary and middle schools, achievement in mathematics, women teachers in rural areas, of unrecognized institutions offering pre-school education, the National Survey of Elementary Teacher Education in India and the Second National Survey of Secondary Teacher Education in India and motor development of Indian children were also analysed.

Inter-state comparisons of girls' education in different States and Union Territories revealed: (i) There had been considerable expansion in elementary education in the post-Independence period, percentage enrolment in Classes I to V increased from 42.6 in 1950-51 to 89 in 1977-78 but it was only 70 of the estimated population of girls in the age group 6-11, by 1977-78 in Classes VI to VIII only 5.9 millions or 27.2 per cent of the total population of girls in the age group 11-14 were enrolled. (ii) The All India Statistics for enrolment of Scheduled Caste and Scheduled Tribe girls revealed wide range of inter-state variations, Kerala, Tamil Nadu and Manipur and the Union Territories of Pondicherry, Andaman and Nicobar Islands, Lakshadweep, Goa, Daman and Diu, Delhi and Chandigarh were the most advanced and had achieved almost hundred per cent enrolment while Rajasthan, Bihar, Madhya Pradesh, Jammu and Kashmir, and Arunachal Pradesh were at the other extreme with an enrolment less than 50 per cent; Andhra Pradesh, Assam, Himachal Pradesh and West Bengal were in the average category in 1969-70 to 1977-78 with gross enrolment percentage between 50 to 70. Orissa and Dadra and Nagar Haveli showed some improvement from gross enrolment percentage in the range 25-49 in 1969-70 to 50-74 in 1973-74. Punjab, Uttar Pradesh and Chandigarh also registered improvement from 50-74 in 1969-70 to 75-79 in 1977-78. Lakshadweep and Pondicherry registered increases from 75-79 in 1969-70 to 100 and above in 1973-74. (iii) Although Uttar Pradesh had gross enrolment percentage in the range 75-99 for Classes I to V, it had poor percentages for Classes

VI to VIII; there were discrepancies between the figures of the Third All India Educational Survey and those of the Ministry of Education. (iv) The States and Union Territories which were backward in the enrolment of girls in the beginning remained so while the ones which were advanced consistently remained advanced. (v) Delhi recorded the highest gross enrolment ratio of girls in Classes IX to XI; even States and Union Territories like Kerala, Chandigarh, Goa, Daman and Diu, Pondicherry, Andaman and Nicobar Islands and Tamil Nadu with high enrolment in Classes VI to VIII showed moderate enrolment percentage in the range 20-40 in the secondary/higher secondary classes. (vi) On an average hardly one or two girls among one hundred in the age group 17-23 enrolled for college education; the States that were comparatively backward in respect of school-level girls' enrolment showed better college-level enrolment in Jammu and Kashmir and Haryana. (vii) Assessing the status of different States/Union Territories in respect of women's education, those which were backward in the education of males were also backward in the education of females; the same was the case of advanced States and Union Territories. (viii) Wastage and stagnation in schools in India suggested that out of 100 boys who entered Class I in 1960-61, about 40 reached Class V in 1964-65, 27 reached Class VIII in 1967-68 and only 20 reached Class X in 1969-70; the corresponding figures for girls were 32, 18 and 12 respectively.

1324. MEDHI, S., *An Investigation into the Probable Causes of Stagnation and Wastage among the Pupils of Secondary Schools, Assam, with special reference to Kamrup District and Remedial Measures Thereof*, Ph.D. Edu., Gau.U., 1978

The major objectives of the study were: (i) to find out the extent of stagnation and wastage among the students of secondary schools, (ii) to find out the causes of these problems in the secondary schools including the grant-in-aid and ad-hoc system schools, (iii) to suggest remedial measures, and (iv) to pinpoint the ways and means to reduce the incidence of stagnation and wastage at the secondary level.

The survey method was adopted. Data were collected with the help of a proforma and questionnaire from 100 selected secondary schools of Kamrup district. Two separate interview schedules were used to collect necessary information from students and their parents. The case study method was also adopted to go deep into the problem. The final sample included 100 headmasters/

headmistresses of selected schools, one inspector of schools, 100 stagnated students and drop-outs and 40 guardians of such students of Kamrup district.

The study revealed: (i) The extent of stagnation and wastage was very high especially in economically backward classes. (ii) The most important reasons of this high percentage of stagnation and wastage were illiteracy of the parents, their poverty, lack of study atmosphere at home, and the rate and irregular payments of the stipend. (iii) Education having a vocational bias was likely to be useful to the students of different abilities. (iv) Lack of efficient teachers at the secondary level, lack of education of the parents, absence of attractive school programme and irrelevant curriculum appeared to be some of the causes.

1325. MEHDI, S., *A Critical Evaluation of the Educational Programmes, Teaching and Instructional Facilities Offered at the Elementary Stage in Baroda Municipal Corporation Schools and Schools run by Private Agencies in Baroda City*, Ph.D. Edu., MSU, 1979

The objectives of the study were: (i) to evaluate and compare private and corporation schools in terms of pedagogical inputs like teaching methods and instructional facilities, (ii) to compare economical (financial) and socio-psychological (organizational climate and leadership behaviour) inputs of private and corporation schools, and (iii) to compare the output in terms of achievement of pupils of private and corporation schools. The various variables under study were types of schools, various school inputs like teaching methods, physical facilities, library facilities, instructional materials, assessment procedures, staff composition, organizational climate of schools, and leadership behaviour of principals. The criterion variable was the score of a pupil on the achievement test. The tools used in the study were Evaluative Criteria prepared by the investigator, Organizational Climate Description Questionnaire (OCDQ) by Halpin and Croft as adopted by Sharma, Desai-Bhatt Group Intelligence Test, an achievement test constructed by the researcher and an interview schedule. The data analysis was done through the use of descriptive statistics and analysis of covariance.

The major findings of the study were: (i) Both the school systems used various teaching methods but the private schools used, though less frequently, audio-visual aids, field trips, and demonstration. (ii) The private schools provided better physical facilities than the cor-

poration schools. The private schools had better library facilities. (iii) Both the school systems had more or less the same type of staff composition but in the corporation schools all the teachers were assigned clerical work and family planning work. (iv) The private schools provided better instructional materials than the corporation schools. (v) In both the school systems, co-curricular activities were poor. (vi) There was no difference in the assessment scheme of the private and the corporation schools. (vii) Per capita expenditure on a pupil in a corporation school was about 68 per cent more than that in a private school. (viii) There was no significant difference in the organizational climate of the private and the corporation schools. (ix) Leadership behaviour in the private schools was of two types — of high initiative and low consideration (56 per cent) and of low initiative and low consideration (44 per cent). In the corporation schools, the leadership behaviour was of high initiative and low consideration (42 per cent), of high initiative and high consideration (27 per cent), of low initiative and high consideration (4 per cent) and of low initiative and low consideration (27 per cent). (x) Children in the private schools achieved higher than those of the corporation schools on achievement tests. (xi) The pupils of different socio-economic status (SES) groups, when they went to private schools, differed in their achievement according to their SES. The average score of the children belonging to SES I was more than that of the children belonging to SES II and SES III; that of the children belonging to SES II was more than that of the children belonging to SES III. In the corporation schools, the average score of the children belonging to SES II was more or less the same as that of the children belonging to SES III.

1326. MEHRA, M., *The Influence of Home Environment on School Children*, Ph.D. Edu., Del. U., 1980

The main objective of the study was to investigate the relationship between home environmental factors and some aspects of the school child. Home environmental factors included the family structure and size, interaction of family members, living accommodation and facilities, educational level, occupational status of father, social life, parents' attitude towards school and teachers and interest taken in teaching the child, behaviour of the child and the parents' disciplinary technique. Other aspects chosen were achievement, self-concept and social adjustment or interrelationship

between the child and his classmates. The main hypotheses framed were: (i) The larger the family, the poorer was the child's achievement and self-concept. (ii) Poor living conditions affected the child adversely in all the three aspects. (iii) The higher the educational level of the family, the better was the child's achievement, self-concept and social adjustment. (iv) The greater the parental interest and positive attitude in the child's school, the better was the child's achievement, self-concept and social adjustment. (v) A richer social life of the child went hand in hand with better performance on all the three variables. (vi) Severe disciplinary technique had a harmful effect on the child's academic performance and self-concept. (vii) The more the parents displayed affection towards the child, the better would her self-concept be.

The study was conducted on a sample of fifty students from the same class of one school and their parents. Some case studies were also done. The tools used in the study were interview schedule, observation, self-concept questionnaire, sociometric test and family attitude test. Statistical techniques like chi-square and mean were used in analysing the data.

The major findings were: (i) In a large family with many siblings, the achievement scores were affected for the worse but not the self-concept scores to the same extent. (ii) The belief about the superiority of eldest children proved false. (iii) Material conditions did not significantly alter the scores in any variable. (iv) The influence of educational status of the family members proved largely true but not father's occupation. (v) The influence of parental visits to school and teaching the child at home was proved to be false and so was parents' attitude to school and teachers. (vi) The influence of parental aspiration, child's reading interests, parents and children sharing their leisure time together proved to be true. (vii) A richer social life of the child helped him to a little extent in most aspects but especially popularity and social adjustments. (viii) The influence of parent's disciplinary techniques was proved beyond doubt in all variables. (ix) Children from a joint family were not more popular than those who were allowed to mix with their neighbourhood friends. (x) The influence of the parents' display of affection was true to a large extent, especially with regard to the mother's.

Organization of Traditional Sanskrit Schools of Uttar Pradesh, Ph.D. Edu., Sampurnanand Sanskrit University, 1981

The main objectives of the investigation were: (i) to study the management of schools, schools' constitutions, appointments, scales of pay, provident fund and the attitude of teachers and principals towards their institutions, (ii) to study the rules and regulations for admission and teacher-pupil interpersonal relation, (iii) to study the interpersonal relations among teachers and principals of the schools, (iv) to study the financial position, school building, hostel facilities, time table, curriculum, examination system and libraries, (v) to study the educational progress, system of inspection, status of discipline and provision for student welfare of the traditional Sanskrit schools, and (vi) to find out the opinion of the State Government and the Sanskrit University regarding the present status of Sanskrit education.

The investigation was conducted on the basis of five hypotheses on a sample of 400 teachers working in 113 traditional Sanskrit schools. Various documents, reports, government publications, etc., were utilized as sources of data. In addition to these, two questionnaires, one for the principals and the other for the teachers, were used for finding out the present status of school administration and organization of traditional Sanskrit schools. These questionnaires had items for measuring opinion regarding an attitude towards the institutions. In addition to descriptive statistics, percentages and chi-square tests were used for analysing the data.

The major findings of the investigation were: (i) There was no significant difference between the administration and organization of A,B,C categories of schools as categorized by the Government. (ii) More than 78 per cent teachers expressed their resentment regarding the prevalent school administration. (iii) All the schools got grant from the government. All the institutional heads and the teachers felt that the grant provided by the government was not sufficient for a smooth running of the schools. (iv) In most of the schools, living in the hostel was not compulsory. Very few schools had hostel facilities and most of the boarders were 'swapaki' (those who cook their meals). (v) More than 75 per cent principals were not satisfied with the present-day curriculum and syllabus prescribed by the Central Sanskrit Board and the Sanskrit Universities. They wanted to have freedom in framing and implementing their own courses of studies. (vi) More than 60 per cent schools had no grant-in-aid for their libraries. The condition of the school libraries were far from satisfactory. (vii) More than 75 per

1327. MISHRA, D.N., *Uttar Pradeshiya paramparagat samskrit vidyalayaon ke shaikshik prashasan ewam sangathan ka alochnatmak adhyayan (A Critical Study of Educational Administration and*

cent principals and teachers expressed their opinion that the system of grading Sanskrit schools into A,B,C was not justifiable. (viii) For the last ten years there had not been even a single amendment in the educational policy of these institutions. (ix) More than 50 per cent principals stated that the students used unfair means in examinations. (x) Almost all the principals reported that inspection of their schools by the government authorities was being done regularly every year and the inspection reports were very satisfactory. But, on the other hand, all the principals reported that the condition of the schools was far from satisfactory. (xi) In almost all the schools, no tuition fee was charged and wherever there were hostels free food and lodging were provided. (xii) More than 40 per cent of the principals said that they faced tremendous administrative difficulties due to administrative irregularities of the Sanskrit University and the Sanskrit Board. (xiii) There was no significant difference between the status of discipline among the three categories of the schools. (xiv) All the administrative difficulties were the outcome of conflict between traditionalism among the teachers and the principals and modernization of administration on British pattern. (xv) Negative attitude of the teachers and the principals towards their institution had not only been manifested by the responses to the questionnaire but also by the very fact that more than 70 per cent staff members were not giving Sanskrit education to their own wards.

1328. MITRA, S.K., *Analysis of Educational Flow in Primary Course of a Region: a Markov Chain Approach*, Psychometry Unit, ISI, Calcutta, 1982

The main aim of the study was to analyse the educational flow in the primary course of a region by applying the theory of Markov chain. The primary school system was considered to be a set of steps, the classes representing the stages of succession. The theory of Markov chain was applied to analyse the flow of students through the system. A set of data regarding the percentages of drop-outs, repeaters and promotees during one year of an area of northern India was used as input. An output long-term implications of the present educational propensity were computed, for instance, the proportion of students who would complete the course successfully, the proportion of dropouts in the long run, the expected stay in school, etc.

The study revealed that the Markov chain approach could be applied to analyse the flow of students through the system and that the findings of the present study

might have important implications in educational planning and research.

1329. MOHAN, S., *A Critical Study of Factors related to Withdrawal at the Secondary Stage*, Ph.D. Edu., Kar.U., 1981

The purpose of the study was to investigate some factors that were related to withdrawal at the secondary stage. The objectives of the study were: (i) to ascertain the extent of wastage at the secondary stage, (ii) to investigate some factors related to withdrawal at the secondary stage, and (iii) to suggest appropriate remedies to combat the problems. Students in Standards IX and X, i.e., at the secondary stage, in the age group 13+ and 17+ constituted the stay-in population of the study. Students who had dropped out in the years 1978-79 and 1979-80 in Standards IX and X at the secondary stage constituted the drop-out population of the study. The stay-ins and the drop-outs were compared with respect to the attitude towards teachers and parents, the attitude towards discipline, the attitude towards life and humanity, achievement motivation, school adjustment, personality adjustment, educational interest and socio-economic status.

The sample constituted 212 stay-ins and 278 drop-outs. The study was confined to Devakottai educational district in Tamil Nadu. Sodhi's Attitude Scale, Achievement Motivation Test (Rao), Educational Interest Record (Bansal and Srivastava), Personality Adjustment Inventory (Sharma), Bhagia's School Adjustment Inventory, Socio-Economic Status Scales (Aaron, Marihal and Maltesha) were the tools used for the investigation. The reliability of the tools was assessed by the test-retest method and the correlations obtained were significant. The above-mentioned tools were administered to both the stay-ins and the drop-outs. The stay-in boys were compared with the drop-out boys and the stay-in girls with the drop-out girls. The stay-ins (both boys and girls) were compared with the drop-outs (both boys and girls). F test and t-test were employed for the analysis of data in pursuance of the objectives of the study.

The major findings of the study were: (i) The stay-ins and the drop-outs did not differ significantly with respect to their attitudes towards teachers and parents, discipline and life and humanity. (ii) The stay-ins and the drop-outs differed significantly with respect to their achievement motivation. (iii) The stay-ins and the drop-outs differed significantly with respect to their personality adjustment; the drop-outs were highly neurotic. (iv) The stay-in and the drop-out boys differed significantly

with respect to their school adjustment while the girls did not differ. (v) The stay-ins and the drop-outs taken together differed significantly with respect to their school adjustment. (vi) The stay-in and the drop-out boys did not differ significantly with respect to their socio-economic status while the girls did; however, when taken together, the two groups did not differ. (vii) The stay-in and the drop-out boys and girls differed significantly with respect to their educational interest in science, engineering, agriculture, humanities and arts, home science, fine arts and commerce. (viii) The drop-outs of both the sexes had more educational interest in the humanities than the stay-ins. (ix) The stay-in and the drop-out boys did not differ significantly with respect to their educational interest in science, medical, engineering, humanities and arts, home science, fine arts, and commerce subjects while they differed significantly in interest in agriculture as a subject. (x) The stay-in and the drop-out girls differed significantly with respect to their educational interest in science, medical, agriculture, humanities and arts, home science, fine arts and commerce subjects but did not differ with respect to engineering. (xi) When taken together, the stay-ins and the drop-outs did not differ significantly with respect to their educational interest in the medical profession.

1330. MOHANTY, J., *Impact of Democracy on Primary Education in India with special reference to Orissa*, Ph.D. Edu., Utkal U., 1980

The objectives of the study were: (i) to find out the conceptual background of teachers and supervisors, (ii) to ascertain to what extent they were aware of their responsibilities in the context of democracy, (iii) to make a stock-taking of the democratic practices and programmes in vogue, (iv) to determine the impact of democracy on various aspects of primary education, and (v) to identify the hurdles and handicaps in the way of democratizing primary education.

All kinds of institutions and practices and programmes at the primary stage came under the scope of this study. The aspects of primary education taken under its purview were democracy and primary education, curriculum and syllabus, methods and materials, school administration, inspection and supervision, school organization, finance and school improvement, examination and evaluation and status and service conditions of teachers.

The study mainly came under descriptive research. Two sets of identical questionnaires were prepared, one

in English for supervisors and another in Oriya for head teachers. Observation as well as interview techniques were utilized for collecting further data. The questionnaire was administered on 580 supervisors and 3,176 head teachers of whom 410 (71.1 per cent) and 1,170 (37.2 per cent) responded, respectively. The total number of interviewers was twenty-five, of whom ten were interviewed personally and five extended their comments in response to an interview schedule. Thus, the total percentage of the interviewees was 60.

The major findings of the study were: (i) The concepts of democracy and primary education were not clear to a large number of supervisors and head teachers. (ii) According to most of the respondents, mass illiteracy and mass poverty were the main obstacles in making India a true democracy. (iii) The school as a conservative agency was not in a position to assume leadership for bringing about desired social changes. (iv) Programmes and practices conducive to democracy were not organized in adequate number in the primary schools. (v) Traditional, not democratic, methods of teaching were followed by a majority of teachers. (vi) Innovations and experiments were not encouraged in the prevailing school system. (vii) Education was not yet made relevant to the life, needs and aspirations of the people. (viii) Democratic decentralization was not a success due to political interference and ignorance of the personnel about their rights and duties. (ix) Freedom and flexibility were lacking in school organization. (x) Student government was not in vogue, in most schools. (xi) Staff meetings were not held regularly in most of the schools. (xii) School timings and holidays were not arranged according to local needs and conditions. (xiii) Supervisors did not often hold discussion on educational matters in staff/faculty meetings. (xiv) School improvement programme did not make headway due to lack of initiative, cooperation and resourcefulness of supervisors. (xv) Academic freedom for teachers' professional growth and introducing innovations was not adequate.

1331. MUKHOPADHYAY, M., and others, *Educational Impact of TTTIS, TTTI*, Bhopal, 1981

The objectives of the study were: (i) to assess the impact of the TTTIs on the polytechnic education system of India, (ii) to gain additional insight into the methods of impact assessment, and (iii) to develop baseline data for future assessment of impacts. The study was forwarded on the basis of forty-one hypotheses, each hypothesis was based on one index of impact. The hypotheses per-

tained to four major areas: implementation of recommended rules and norms, polytechnic resources (equipment, supplies and services), TTTI polytechnic communication (curriculum, teaching-learning process, student assessment, management and research), and products.

The study was forwarded on a major assumption that the polytechnics which had a history of close collaboration with their regional TTTI would be significantly different from those which had a history of low collaboration with their regional TTTI with regard to the selected list of indicators of impact. Using the case nomination procedure, all the polytechnics in each region were classified into three categories — close/high (HCP), intermediate and low collaboration (LCP) with the TTTI. Cases were identified in the close collaboration group. For each case in the close collaboration group a case was identified in the low collaboration group, a one to one matching was done on rural/urban setting, large/small size, government/private management; thus, two matched groups were formed. With collaboration as the treatment, the study adopted an *ex post facto* experimental design. Case studies were conducted on sixteen polytechnics with a history of close collaboration and fifteen with low collaboration, six each from the eastern and northern regions, nine from the southern region and ten from the western region and fourteen from different States or Union Territories of India. The various instruments used in this study were case nomination form, polytechnic review form (polytechnic trend data, principal's interview schedule, and inventory of audio-visual and reprographic equipment), polytechnic faculty questionnaire, polytechnic observation schedule, and DTE/BTE interview schedule. The respondents to these instruments were 31 principals, 441 teachers and Directors of Technical Education and Secretaries of Boards of Technical Education. The data were converted into some categories of responses and the percentage of responses from each group of polytechnics was computed. The significance of difference of the percentages was tested using critical ratios and chi-square test.

Some of the major findings of the study were: (i) The polytechnics with high collaboration were significantly different from those with low collaboration in as many as twenty out of the forty-one selected indices of impact. (ii) On four more indices the impact was on more than 70 per cent cases across the HCPs and LCPs. (iii) The HCPs differed significantly from the LCPs in staff-student ratio for practical work, initiative in staff development activities, classroom facilities, laboratory facilities, library facilities, support services, utilization of

laboratories, teachers' contribution to the item bank, teachers devoting more time on preparation, using more than three teaching methods and three teaching aids, principals' initiative in introducing new programmes, principals having favourable attitude towards TTTI, and so on. (iv) The impact was significant in the areas of curriculum development, teaching-learning process, utilization of laboratory and other facilities, initiative in staff development, leadership. (v) The emerging areas of impact were examination and students' admission.

***1332.** NAIK., C., *A Survey of Drop-out and Non-enrolment of Children in the 6-14 Age Group*, Indian Institute of Education, Pune, 1981

The specific objectives of the survey were: (i) to hold a total census of all children in the age group 6-14 in the villages in the project area, (ii) to identify children who regularly attended a primary school, children who had attended a primary school but dropped out, and children who never went to a primary school, (iii) to ascertain sex-wise composition of children, their proportion in the total child population, and their socio-economic background, (iv) to ascertain the causes why each non-attending child was not able to receive education and to identify measures needed to enable him to attend school, either on a full-time formal basis or on a part-time non-formal basis.

Six different survey schedules were used. These were: (i) a village schedule to collect information on physical amenities in the village; (ii) an education schedule to cover information about educational institutions; (iii) a family schedule for information about the socio-economic and educational status of each member in the family; (iv) a schedule for information on drop-outs; (v) a schedule for information on school-attending children; and (vi) a schedule for information on children not attending school. The last three were used family-wise.

The project area comprised five agroclimatically different areas of Pune district covering 19,870 families and a population of 1,21,308.

***1333.** NAIK, D G., *An Inquiry into the Relationship between Leadership Behaviour of Secondary School Headmasters and Teacher Morale*, Ph.D. Edu., SGU, 1982

The objectives of the investigation were: (i) to study the leadership behaviour of the headmasters of the sec-

ondary schools of South Gujarat, (ii) to study the morale of the teachers of the secondary schools of South Gujarat, (iii) to examine the relationship between different dimensions of leadership behaviour of the headmasters and different dimensions of the teachers' morale, (iv) to find out the relationship between the leadership behaviour of the headmasters and the area, sex, size and management of the school, and (v) to study the relationship between the teachers' morale and the area, sex, size and management of the school.

The sample for the study consisted of 100 schools drawn from the five educational districts of South Gujarat. The sample included all types of schools, viz., boys', girls', urban, rural, large, small, government and private. Data were collected by using Leadership Behaviour Descriptive Questionnaire (LBDQ) and Teacher Morale Inventory. Coefficients of correlation were computed between twelve dimensions of leadership behaviour and fourteen dimensions of teachers' morale. Relationship between leadership behaviour, teachers' morale and certain biographical variables was studied by analysing the collected data using univariate analysis of variance.

The major findings of the investigation were: (i) There was significant and positive relationship between building facilities, evaluation of students, special services, supervisory relations and colleague relations. (ii) Integration (leadership behaviour dimension) was significantly related to material and equipment, special services and to supervisory relationships. (iii) There was no significant relationship between the twelve dimensions of LBDQ and the experience of the headmaster. (iv) Teachers' morale had no significant relationship with the type of school, area of the school, and size of the school. (v) LBDQ had no significant relationship with the type of school, area of the school, and size of the school.

1334. NAIN, J.S., SRIVASTAVA, R.P. and BOLAR, M., *Manpower Planning for the North-eastern Region*, IAMR, New Delhi, 1975

The major objectives of the study were: (i) to assess manpower requirements at micro-level for important selected sectors and an evaluation of manpower availability, potential of manpower education and training facilities *vis-a-vis* manpower requirements, and (ii) to provide a macro-level model for assessing manpower demand and supply and planning for educated/skilled manpower.

The approach for finding out demand was basically narrative, based largely on a study of the staffing pattern, existing and proposed, in the States/Union Territories, the experiences of other States and recommendation of study groups and commissions for similar/comparable activities. The requirements were arrived at on the basis of known macro-level norms wherever such were available. The 'supply' was worked out on the out-turn method through (in the absence of adequate institutional out-turn data for the early years) information from census data as the base for building the stock. The methodological issues differed considerably for the various sectors of economic activity and for the various types of personnel such as teachers, medical and veterinary doctors and engineers. The estimates of manpower 'demand' and 'supply' given by this study were based on schemes and projects approved by the working group for the Fifth Plan period.

The major findings of the study related to education were: (i) Education, training or employment had costs attached to them. For instance, an engineer would cost approximately Rs.2,700 per year of his training and a diploma-holder Rs.1,800 per year of his training. On the other hand, the employment of a degree-holder with little or no service experience will cost of a diploma-holder approximately Rs.12,000 per year and for an I.T.I. trained technician approximately Rs.9000 per year by way of salaries, other benefits and related costs. Therefore, in taking decisions, whether to set up additional education and training facilities, these costs and the additional employment costs to the State should be borne in mind. The costs of a manpower plan had to be budgeted for. (ii) The strategy of manpower education and training should not merely be one of matching it with employment potential in the short run, for five years, but it should be a deliberate long-term strategy which would balance the region's economic growth potential and the required levels of education and skill training, building up a relevant education design for realistic social aspirations. (iii) Education and skill requirements for manning managerial administration, marketing, commercial, clerical and other such positions had to be broadly analysed and demands for personnel to man such positions had to be broadly assessed. (iv) The issues common to all the States/Union Territories, by and large, were: (a) training of untrained teachers, (b) need for attracting rural candidates for teacher training programmes, particularly rural women, (c) identifying subject-wise teacher training requirements and organizing training programmes to meet this need, and (d) instituting retraining/refresher program-

mes. (v) The State of Meghalaya would face a substantial shortage of trained teachers for elementary education and a marginal shortage of high/higher secondary teachers. At the end of 1979, Meghalaya would have covered the entire population of children in the age group 6 to 11 and 44 per cent of the age group 11 to 14. It was considered necessary that additional teaching facilities must, therefore, be flexible so that, once the largely substantial shortage of elementary teachers was met, they could be adapted for training untrained teachers and for retraining. (vi) The need for rural teachers, particularly for subjects like mathematics, science and Hindi, had to be evaluated and appropriate action taken. (vii) An additional training college might be opened which might, however, in the first few years, also undertake training for elementary education, but with primary emphasis on high and higher secondary education in the long run.

1335. NAIR, R.J., *A Statistical Portrait of the Kerala University*, Dept. of Stat., Ker. U., 1981 (UGC-financed)

The study intended to provide an account of the growth and development of higher education in the University of Kerala and in the affiliated colleges. It (i) reviewed the origin and growth of higher education, (ii) described the socio-cultural demand for higher education, and (iii) assessed the quantitative progress of enrolment in general education and professional education.

The major source of data for the study consisted of Form B, Statistics of Universities in India, budget estimates of the University of Kerala, the annual reports of the University of Kerala and census reports. Percentages were calculated for purpose of comparison and to assess growth. Coefficients of equality were calculated to compare the enrolment of Scheduled Caste and Scheduled Tribe pupils with the pupils of other communities.

The main conclusions of the study were: (i) Sex differences in enrolment which were significant up to 1977-78 were insignificant for 1978-79. (ii) The proportion of women entering higher education to those who passed the entrance requirement, the SSLC Examination, was significantly lower than the corresponding figure for men. (iii) Gradual expansion in the number of institutions was evident for general education and for professional education. (iv) The increase in the number of students saw a phenomenal increase during the period under study, with the percentage enrolled in the post-graduate courses also increasing. (v) In professional

education the increase in enrolment was gradual in all faculties, with Commerce showing highest enrolment. (vi) Although the enrolment of Scheduled Castes/Scheduled Tribes showed overall improvement, the proportion to total enrolment was low (7.8 for Scheduled Castes and 0.54 for Scheduled Tribes). (vii) The coefficients of equality showed increasing values but the values showed that greater efforts needed to be made to make their proportion equal to that of the students of other communities. (viii) In professional education, the percentage of enrolment of Scheduled Castes was only 5 and of Scheduled Tribes 28 while their percentages of reservation were higher. (ix) The coefficient of equality for Scheduled Castes and Tribes calculated for professional education showed higher values for Scheduled Tribes when compared to general education. (x) The number of teachers in higher education, both general and professional, showed increase but the teacher-taught ratio appeared to be almost the same. (xi) The average annual growth of expenditure in higher education decreased from 15.2 per cent for the period 1957-58 to 1967-68 to 4.2 per cent for the period 1968-69 to 1976-77. (xii) The increase in expenditure showed amount of parity with the increase in enrolments. (xiii) The average cost of educating a student was lower in general education than in professional education. (xiv) The number of students who passed different examinations was shown to vary in different years. (xv) The interaction between sex and division was significant at the pre-degree level alone. (xvi) The student amenities provided by the University covered a number of areas.

1336. NAMBIAR, A.K.N., *Administration of School Education in the State of Kerala*, Ph.D. Edu., Ker. U., 1976

The major objective of the study was to make a critical appraisal of the enactment and implementation of the Kerala Education Act and Rules and the administration of school education during the first twenty years in the career of the new State of Kerala.

The study was based almost exclusively on official documents. As a supplement to document analysis, questionnaire, surveys and case studies were also used.

The major conclusions of the study were: (i) Several provisions in the Kerala Education Act and Rules were adequate to ensure that private schools were properly conducted. (ii) By doing away with Section II of the Act which gave powers to the government to recruit teachers in aided schools, managements were left free to do as

they pleased. (iii) There was nothing on record to show that the government at any time had openly decided to soft-pedal the provisions in K.E.R. with regard to the fulfilment of conditions for recognition of aided schools. (iv) The Education Act was only a codification of the various measures necessary to safeguard the interests of the private school teachers; it had very little of educational character. (v) The standards of instruction were very low as assessed by the results at the external examination and the enormous expenditure of the State and national resources. (vi) The teachers' unions, with their political linkages, were the main instigators of indiscipline among the members.

1337. NAYANTARA, S.N., *A Study of Universal Primary Education in Tumkur District (Karnataka)*, Institute for Social and Economic Change, Bangalore, 1981 (Planning Commission-financed)

The major objectives of the study were to find out (i) the extent of non-enumeration, non-enrolment, non-attendance and drop-outs at the elementary stage of education (6-14 years), (ii) the differential rates of non-enrolment, non-attendance and drop-out between villages which had facilities for different levels of schooling, (iii) the sex-wise composition of the non-enrolled, non-attending and drop-out children, (iv) the Scheduled Caste and Scheduled Tribe composition of the non-enrolled, non-attending and drop-out children, (v) the socio-economic composition of the children who did not enrol, or did not attend school regularly, or who dropped out prematurely from elementary schools, (vi) the relationship between schooling facilities and the incidence of non-enrolment, non-attendance and drop-out, and (vii) formal and non-formal ways and means of reducing non-enrolment, non-attendance and drop-out.

The study was restricted to Tumkur district. A 2 per cent sample of the total number of villages, i.e., fifty-four villages, was selected for the final study. The target groups approached for the survey included parents, school teachers, village panchayat (VP) chairmen and members, SBC chairman and members and education officials. Schedules were constructed to elicit information from each of the respondents. The data collected were analysed by using percentages and correlations.

Some of the major findings of the study were: (i) The percentage of non-enumeration was 2. (ii) The overall gap between enumeration and enrolment was 6 per cent. (iii) The incidence of irregular attendance was the high-

est (17 per cent) in Class I. (iv) The percentage of irregular attendance was more among girls in lower primary schools while the percentage of irregular attendance was higher among boys of higher primary schools. (v) The incidence of irregular attendance was 63.12 per cent in households whose family size was five to eight. (vi) Irregular attendance was noticed in equal measure both among literate and illiterate families. (vii) About 90 per cent of the families of irregular attenders came from an income bracket of less than five thousand rupees per annum. (viii) The percentage of failure was markedly high in Class I (34.1 per cent) and decreased by Class IV (15.9 per cent). (ix) Detention rate was higher among girls than among boys. (x) Detention rate was higher among students belonging to Scheduled Caste and Scheduled Tribe communities than among students from other communities. (xi) The drop-out rate was the highest (70.52 per cent) in Class I. (xii) The drop-out rate in illiterate families was thrice that of literate families belonging to Scheduled Caste, Scheduled Tribe and other caste communities. (xiii) About 77.28 per cent of the families of the drop-outs had no reading habit. (xiv) Important measures taken by teachers to check the drop-out rate included persuading the parents with the help of VP and SBC members to send children to school, enlightening the parents about the importance of education, incentive schemes, door-to-door campaign, etc. (xv) The correlation between the drop-out at Class I and the school index was significant and positive. (xvi) On an average, three persons were available in each village to teach in non-formal education centres. (xvii) In connection with non-formal education, all the respondents were in favour of inclusion of improved agricultural methods, 86.67 per cent for domestic science, 76.67 per cent for cottage industry, 68.33 per cent for Indian medicine, and 48.33 per cent for small-scale industry.

1338. NIEPA, A Study of Administration of Elementary Education in relation to the Programme of Universalization in Andhra Pradesh, New Delhi, 1979

The objectives of the study were: (i) to examine the adequacy of the present administrative system for elementary education in relation to the programme of universalization of elementary education (UEE) in Andhra Pradesh, (ii) to suggest ways and means of strengthening and streamlining the administration of elementary education in A.P. for the successful implementation of the UEE programme, (iii) to suggest ways and means of coordinating the efforts of the Educa-

tion Department with the other developmental agencies in A.P. involved with the programme, and (iv) to suggest a framework for the decentralization of administration of elementary education in A.P. so that on-the-spot decisions could be taken and full involvement of the community ensured.

From among twenty-two educational districts in Andhra Pradesh, which were arranged in descending order in relation to their enrolment ratio in the age group 6-13 as on 31 March 1978, two districts each from the third and the fourth quartile were selected as sample areas for the study. Subsequently, two blocks in each of the two districts — one with the highest enrolment and other with the lowest enrolment in Classes I to VII — were selected. Furthermore, three villages from each block were selected for intensive study. All the schools in the twelve selected villages were included in the study. Separate schedules were developed for various functionaries at village, block, district and State levels to study the administrative instructions and departmental regulations, to collect basic data related to the job chart of administrative functionaries, to study the effectiveness of administrative personnel and to conduct interviews to obtain information about the functions performed by administrative personnel.

The major findings of the study were: (i) There was a regular system of collecting the annual census of children in the age group 6-13 by the headmasters at the beginning of the academic year. The information was furnished to the higher authorities but was not used by the headmasters themselves for increasing the enrolment even though it was far from satisfactory in the age group 6-11. (ii) The proportion of enrolment was significantly high from the homes with enlightened parents irrespective of caste. (iii) The enrolment of girls was far less than that of boys; the attendance of children suffered during the harvesting period, fairs and festivals. (iv) There was high incidence of the drop-out in some of the sample villages, as high as 85.7 per cent in the case of girls. The rigid working schedule of the school contributed to the non-attendance and drop-out of children. (v) Only 50 per cent of the schools had proper buildings but BDOs reported that 80 per cent schools did not have proper buildings. Almost all schools lacked proper furniture, equipment and teaching aids. (vi) Cooperation of the community was noted only in villages with enlightened parents. (vii) The conditions and functioning of single-teacher schools were far from satisfactory. The efforts for providing in-service training of teachers were not sufficient for the qualitative improvement of elementary education. The school complexes did not appear to func-

tion properly. (viii) Inspection by officers was inadequate. The inspection proforma did not adequately cover information about drop-outs, efforts by the teachers to reclaim the drop-outs, impact of incentives and school improvement programmes. (ix) No non-formal centre existed in any of the sample villages. (x) The incentives to Scheduled Castes, Scheduled Tribes and girls were provided only towards the end of the academic year, therefore they were ineffective in increasing enrolment and attendance of children; the amount per child for the midday meal was insufficient. (xi) Although the panchayat samitis received 100 per cent grant, they did not spend a sufficient amount from their own general funds for the development of elementary education. (xii) Many schools had no school improvement committees and where they did exist, they did not function effectively and therefore their contribution to the UEE programme was insignificant. (xiii) As 60 per cent of the DEO's time was consumed in administrative responsibilities he was not able to devote sufficient time to academic functions. (xiv) Due to the launching of several schemes related to the UEE programme the Directorate was unable to cope with the pressure of work. (xv) Due to lack of comprehensive information about the district plans the finalization of annual plans and five year plans of education were delayed. The delayed administrative sanction by the government affected the implementation of the UEE programme. (xvi) Educational statistics suffered from discrepancies due to inadequate machinery for the collection of data at the district level; their publication also suffered due to the same reasons. (xvii) The monitoring and supervision of the UEE programme was inadequate as the higher officers had hardly any time to visit the districts. (xviii) At the secretariat level no special machinery existed for the speedy sanction of schemes related to the UEE programme.

1339. NIEPA, *A Study of Elementary Education in relation to Universalization of Elementary Education in Assam*, New Delhi, 1979

The objectives of the study were: (i) to examine the adequacy of the present administrative system of elementary education in relation to the UEE programme in Assam, (ii) to suggest ways and means of strengthening and streamlining the administration of elementary education in Assam for the successful implementation of the programme, (iii) to suggest ways and means of coordinating the efforts of the Education

Department with other developmental agencies in Assam in achieving UEE, and (iv) to suggest a framework for the decentralization of elementary education administration in Assam so that on-the-spot decisions could be taken and involvement of the community ensured.

Two districts (sub-divisions) were selected from twenty-five sub-divisions, one each from the third and fourth quartiles after arranging the sub-divisions in a descending order in relation to school enrolment. Two blocks from each sub-division, one with the highest enrolment and the other with the lowest enrolment, were selected. Three villages in each block were so selected that one village had a single-teacher primary school, the other multi-teacher primary school and the third middle school with Classes I to VIII. Separate schedules were developed for various functionaries at village, block district and state levels to study the administrative instructions and departmental regulations, to collect basic data related to the job chart of administrative functionaries, to study the effectiveness of the administrative personnel and to conduct interviews to obtain information about the functions performed by administrative personnel.

The findings of the study were: (i) Annual census of children in the age-group 6-14 was not conducted at the village level impeding the identification of non-enrolled and drop-out children; at the block level also there was no regular system of annual census of eligible school-going children. (ii) The percentage of non-enrolment was higher among girls. (iii) In the absence of any directive by the government, teachers did not inform parents of the irregularity of their children. (iv) There was no regular system for providing incentives to children. (v) The condition of school buildings was far from satisfactory; furniture and teaching aids were inadequate and there were large number of village schools which were functioning without a blackboard, a map or a globe. Non-existence of minimum facilities in elementary schools hampered the successful implementation of the UEE programme. (vi) Due to shortage of housing facilities in rural areas, many teachers had to come from distant places and therefore had hardly any time to contact the community. (vii) Planned visits by SIs were few with no follow-up of inspection reports. There was no standardized inspection proforma that could be used by the inspecting officers. There was no facility of in-service programmes for inspecting officers. (viii) The rigid five-hour schooling system made it difficult for rural parents to spare children for the entire day. (ix) There were no school complexes. (x) There was no coordination bet-

ween various functionaries at the village level with regard to improving the quality of education and sharing joint responsibilities for increasing enrolment. (xi) There were 1,000 non-formal education centres for the children in the age group 9-11 in the rural areas all over the State but due to lack of coordination and understanding with formal educational institutions, their aim of covering the drop-outs from the formal schools could not be served. (xii) There was no parity between educational circle and civil administration. (xiii) No in-service training programme for teachers was organized at the block, sub-division or district level. (xiv) The district-level administration had no responsibility in the administration of primary and middle vernacular schools and zila parishads did not participate in the implementation of the UEE programme at the district level. (xv) In the absence of suitable machinery at the directorate level, there was no procedure for preparing district, sub-division, block and village level plans for elementary education.

1340. NIEPA, *A Study of Administration of Elementary Education in relation to Universalization of Elementary Education in Bihar*, New Delhi, 1979

The objectives of the study were: (i) to examine the adequacy of the present administrative system of elementary education in relation to the UEE programme in Bihar, (ii) to suggest ways and means of strengthening and streamlining the administration of elementary education in Bihar for the successful implementation of the UEE programme, (iii) to suggest ways and means of coordinating the efforts of the Education Department with the other development agencies in Bihar for achieving UEE as visualized in the Medium Term Plan 1978-83, and (iv) to suggest a framework for the decentralization of administration in Bihar so that on-the-spot decisions could be taken and involvement of the community ensured.

Out of the thirty-one districts, six districts were selected, one each from the second and fourth quartiles and two each from the first and third quartiles, after arranging them in a descending order of school enrolment. While from Ranchi, Santhal Parganas and West Champaran two blocks each, one advanced in elementary education and the other backward, were selected, the other three blocks were selected one each from the three districts, i.e., Nalanda, Purnea and Singhbhum. Each habitation and elementary school located in the twenty selected gram panchayats were covered. Separate

schedules were developed for various functionaries at village, block, district and state levels to study the administrative instructions and departmental regulations, to collect basic data related to the job chart of administrative functionaries, to study the effectiveness of the administrative personnel and to conduct interviews to obtain information about the functions performed by the administrative personnel.

The findings of the study were: (i) As the census of children in the age groups 6-11 and 11-14 in sample gram panchayats was incomplete, a census was undertaken by the Block Extension Education Officers for the study. (ii) The incidence of non-enrolment, on the whole, was consistently higher in the case of girls; enrolment drives did not make any impact on their enrolment. (iii) No organized sustained effort was made either to enrol additional children or to improve the low teacher-pupil ratio. (iv) There was dearth of qualified teachers in the sample schools. (v) School committees were not effective. (vi) Needy children did not receive incentives in time due to inadequate planning for distribution; there was demand for the midday meal programme. (vii) Inspection of schools was generally routine and offered little professional guidance with no follow-up. (viii) At the district level there was no officer in overall charge of elementary education, and enrolment strategies and monitoring of educational programmes lacked emphasis. (ix) Most single and double-teacher primary schools had no buildings. (x) The Regional College of Education, Bhubaneswar, had started ten experimental non-formal education centres with trained resource persons but the State had not taken up the idea. (xi) The directorate of primary education functioned separately with a director assisted by five deputy directors. The five deputy directors dealt with matters exclusively under their purview. (xii) Urgent need was felt for the delegation of powers among officers. (xiii) There was immediate need to effectively coordinate the activities of the Directorate of Adult Education and those of the Directorate of Primary Education. (xiv) A well-supervised child census programme was of vital importance. (xv) The statistical unit, the planning cell and the budget section at the secretariat level needed strengthening and streamlining.

1341. NIEPA, *A Study of Administration of Elementary Education in relation to Universalization of Elementary Education in Jammu and Kashmir*, New Delhi, 1979

The objectives of the study were: (i) to examine the

adequacy of present administrative system for elementary education in relation to the programme of Universalization of elementary education (UEE) in Jammu and Kashmir, (ii) to suggest ways and means of strengthening and streamlining the administration of elementary education in Jammu and Kashmir for the successful implementation of the programme, (iii) to suggest ways and means of coordinating the efforts of the Education Department with the other developmental agencies in Jammu and Kashmir, and (iv) to suggest a framework for the decentralization of administration of elementary education in Jammu and Kashmir so that on-the-spot decisions could be taken with full involvement of the community.

On the basis of the existing enrolment ratio, two districts were selected from the third and fourth quartiles after arranging the districts in a descending order. Two tehsils from each district were selected on the basis of the lowest and highest enrolment ratio. Six villages from each tehsil were chosen randomly. Separate schedules were developed for various functionaries at village, block, district and state levels to study the administrative instructions and departmental regulations, to collect basic data related to the job chart of administrative functionaries, to study the effectiveness of the administrative personnel and to conduct interviews to obtain information about the functions performed by the administrative personnel.

The findings of the study were: (i) Regular annual census of children in the age group 6-14 was undertaken by the schools but the efforts to enrol and retain the children were casual. (ii) Out of the sample of forty-seven school teachers, only fifteen resided near and could help in census work and in the enrolment drive. (iii) The enrolment ratio of boys in the age group of 6-11 was 69.9 per cent, whereas in the case of girls it was 30.2 per cent; for the SC boys it was 31.82 per cent and for SC girls 7.37 per cent. (iv) The drop-out rate was very high in all the sample areas. (v) Almost all the teachers reported to have made efforts to contact the community for regular attendance of children but were not encouraged by the department for their efforts. (vi) Village committees functioned in six out of the twenty-four villages; the community's contribution was nominal in the UEE programme. (vii) The non-formal education centres were opened on an arbitrary basis and therefore failed to function. (viii) The enrolment drive was poorly organized with little participation, due to preoccupation of Tehsil Education Officer and Additional Tehsil Education Officer and no assessment of the drop-outs was made. (ix) At the State level 85 per cent primary schools

were single teacher schools; poor retention of the schools was the main cause for low enrolment. (x) The percentage of trained teachers at the elementary stage was satisfactory in all the sample tehsils. In-service training was imparted by the District Institute of Education. (xi) The inspecting officers could not inspect all the schools under their jurisdiction due to administrative responsibilities and the inspection reports were not very helpful to teachers and headmasters. (xii) There was no flexibility in the school timings and vacation whereas the timings of the non-formal education centres were flexible according to the local needs. (xiii) Incentives like scholarships, uniforms and textbooks were provided to needy students. (xiv) There was no separate branch at the directorate for ensuring the performance and progress of elementary education. (xv) The two divisions of SIE at Jammu and Srinagar looked after the organization of various pre-service and in-service programmes, preparation of guide books for teachers and organization of UNICEF-aided projects relating to the UEE programme.

1342. NIEPA, *A Study of Administration of Elementary Education in relation to the Programme of Universalization in Madhya Pradesh*, New Delhi, 1979

The objectives of the study were: (i) to examine the adequacy of the present administrative system of elementary education in relation to the UEE programme in Madhya Pradesh, (ii) to suggest ways and means of strengthening and streamlining the administration of elementary education in Madhya Pradesh for the successful implementation of the UEE programme, (iii) to suggest ways and means of coordinating the efforts of the Education Department with the other developmental agencies in Madhya Pradesh for achieving UEE, and (iv) to suggest a framework for the decentralization of administration of elementary education in Madhya Pradesh so that on-the-spot decisions could be taken and full involvement of the community ensured.

Two blocks and six villages were identified from each district except Bilaspur where one additional block having Scheduled Caste concentration was included for in-depth investigation. The blocks in each district were chosen on the basis of the lowest and the highest enrolment, respectively. In order to study non-formal education programme, the sample included NFE centres from Betul and Chhindwara districts and some in Raisen and Rajgarh districts as they were fairly representative. Data were collected at various levels, namely, school, village,

block, district, division and headmasters to study the administrative instructions and departmental regulations, to collect basic data related to the job chart of administrative functionaries, to study the effectiveness of the administrative personnel and to conduct interviews to obtain information about the functions performed by administrative personnel.

The major findings of the study were: (i) Fifty-six per cent headmasters conducted census of students in the age group 6-11 and 11-14 once in a year and maintained records in the schools. (ii) Efforts were made by the headmasters to contact the community for increasing enrolment and community involvement in school activities. (iii) Various incentives such as supply of midday meals, textbooks and stationery, school dress and attendance scholarship were offered by the local community to induce students to attend school. (iv) Headmasters opined that they worked enthusiastically for achieving the objective of UEE; they took various measures to bring the out-of-school children to schools. (v) While a majority of the headmasters belonging to Khargaoon and Shivpuri districts were satisfied with the administrative arrangement at the school level, all the headmasters of Sagar and Bilaspur districts expressed their dissatisfaction. (vi) On an average, the headmasters devoted one and half hours to classroom teaching, and the remaining time was spent on non-academic duties. (vii) Contrary to the general impression, most teachers (except those belonging to Bilaspur) stayed in the areas where the schools were located. (viii) A majority of the teachers (70 per cent) were satisfied with the present conditions and arrangements regarding jobs. (ix) The drop-outs were engaged in various occupations existing in the surrounding areas. Most of them expressed their willingness to re-enrol in school to continue their education at night, if help was rendered by the government. (x) The largest number of truants were from agricultural families. Most truants came from families having income ranging up to Rs. 3,000 per annum. (xi) The incidence of truancy was higher in the case of larger families. (xii) School committees were constituted as per provisions contained in Panchayat Adhiniyam, 1962. (xiii) There was financial provision for the development of education in panchayats and the sarpanchs felt that the panchayat should have complete control over school affairs. (xiv) In all, 597 non-formal education centres were run by the government and non-government agencies; there was a programme for opening 2,000 more centres during 1979-80. All the centres catered to the age-group 9-11. (xv) The average enrolment at the government centres was twenty-five whereas at the NCERT centres it was

fifty. (xvi) By and large, the enrolment of girls was very high; however, the enrolment of the Scheduled Caste children was poor. (xvii) The average attendance at the centres was 70 per cent of enrolment; the rate of drop-out from these centres was about 12 per cent. (xviii) The five-year syllabus was condensed into a two-year course of eighteen units. A majority of the teachers opined that the community needs were met by the NFE centres. (xix) The NFE centres were supervised by ADIs, DEOs and the staff of SIEs and Education Colleges. (xx) A few Ashram Schools were run for tribal students and were liked by pupils. The community was in favour of establishing Ashram Schools. (xxi) At the block level, the Janpad Panchayat looked after educational needs and administration, however the duties pertaining to UEE, i.e., enrolment of students and securing community participation for promoting regular attendance of students and teachers did not find place in their functions. (xxii) According to BDOs, the reasons for slow progress of UEE were non-delegation of complete powers to Janpads and non-provision of budget for school buildings and equipment. It was suggested that the relations between the BDOs and the functionaries of the Education Department needed to be improved. (xxiii) By and large, inspection records were missing. The ADIs were not able to inspect because of their non-academic duties. The inspection notes of ADIs were not sent either to the BDO or Janpad Panchayat, thereby resulting in a lack of coordination among the agencies responsible for supervising village schools. (xxiv) There was no separate cell for elementary education in the divisional office, implying that the DSE had no direct control over the UEE programme. (xxv) No formal channels of interaction existed between the DSE's office and other departments/agencies at the divisional level. (xxvi) The Directorate of Public Instruction controlled education, its expansion, administration, supervision and training of personnel from pre-primary to higher secondary levels; however, its role was limited only to academic supervision and control of examinations in the tribal schools.

1343. NIEPA. *A Study of Administration of Elementary Education in relation to the Programme of Universalization in Orissa*, New Delhi, 1979

The objectives of the study were: (i) to examine the adequacy of the present administrative system of elementary education in relation to the UEE programme in Orissa, (ii) to suggest ways and means of strengthening and streamlining the administration of

elementary education in Orissa for the successful implementation of the UEE programme, (iii) to suggest measures of coordinating the efforts of the Education Department with the developmental agencies in Orissa for achieving UEE, and (iv) to suggest a framework for the decentralization of administration of elementary education in Orissa so that on-the-spot decisions could be taken and community involvement ensured.

From among fifteen educational circles of thirteen revenue districts in Orissa arranged in descending order in relation to their enrolment ratio in the age-group 6-14, two districts each from the third and the fourth quartiles were selected as sample areas for the study. Two blocks in each of the two districts, one with the highest enrolment and the other with the lowest enrolment, were selected. For indepth study nineteen villages belonging to these four blocks were identified. In addition, six non-formal education centres were also studied. Separate schedules were developed for various functionaries at village, block, district and state levels to study the administrative instructions and departmental regulations, to collect basic data related to the job chart of administrative functionaries, to study the effectiveness of the administrative personnel and to conduct interviews to obtain information about the functions performed by administrative personnel.

The major findings of the study were: (i) Regular annual census of children in the age-group 6-14 was not undertaken regularly and in many cases not at all. At the block level no record of enrolled and non-enrolled children was available as neither the BDO nor the SI took interest and initiative in the matter. (ii) There was no assessment of the drop-outs at the elementary stage and no effort was made at the village or block and district level to record the drop-outs. (iii) As per the opinion of the BDOs and SIs, nearly 50 per cent of the schools did not have adequate buildings, the pupils in almost all the schools were seated on the floor. The annual contingency grant was too meagre to meet the needs. (iv) Most teachers in the sample schools were not posted in their respective villages, which led to frequent absenteeism, late coming and early leaving from the school among teachers. (v) In many single-teacher schools the teacher lacked professional or special training for multiple class teaching. (vi) The schools located in inaccessible areas remained closed for three to four days at a time as teachers had to personally collect their salary from the block office. (vii) Very few schools were inspected more than once by the SIs; the number of surprise inspection was even less. In the absence of prescribed proformas, inspection reports lacked information on non-enrolled

children, drop-outs, incentives, etc. Due to the involvement of SIs as well as BDOs in non-academic work, very little time was devoted to academic supervision. (viii) Non-formal centres were set up under the Central and State-sponsored scheme. (ix) Incentives offered to non-attending children in the sample schools were inadequate. In a few selected schools the CARE programme had arranged for midday meals and the Tribal and Rural Welfare Department (TRWD) provided reading and writing materials to the Scheduled Caste and Scheduled Tribe students. Incentive schemes were introduced to promote enrolment of girls and children from economically backward sections; incentives had positive influence on enrolment and attendance of the Scheduled Caste and Scheduled Tribe children. (x) Most villages which had constituted school committees contributed very little to improve the quality of education, enrol children and reclaim the drop-outs. (xi) There was practically no regular system of coordination between the functionaries of the Education Department and those in development departments. Due to the delay in releasing grants, the developmental work of the schools got delayed and caused frustration among the people and the school staff. The District Inspector was too preoccupied with administrative and financial responsibilities in the office to find time for academic work. The inspector of schools (IS) had no role in the UEE scheme. (xii) For the successful implementation of the UEE programme there was need for the retention of enrolled children taking steps for the increase of enrolment providing each village with a school, equipping it with required furniture and increasing the efficiency of teachers.

1344. NIEPA, *A Study of Administration of Elementary Education in relation to the Programme of Universalization in Rajasthan*, New Delhi, 1979

The objectives of the study were: (i) to examine the adequacy of the present administrative system of elementary education in relation to the programme of universalization of elementary education in Rajasthan, (ii) to suggest ways and means of strengthening and streamlining the administration of elementary education in Rajasthan for the successful implementation of the programme of universalization of elementary education, (iii) to suggest ways and means of coordinating the efforts of the Education Department with the other developmental agencies for achieving universalization of elementary education, and (iv) to suggest a framework

for the decentralization of the administration of elementary education to facilitate on-the-spot decisions and involvement of the community in the programme.

The sample was selected from twenty-seven educational districts, on the basis of their relation to enrolment in the age-group 6-14. Two more districts, namely, Jodhpur and Udaipur, were included later to give representation to the desert and tribal areas, respectively. Furthermore, from each of the sample blocks, three villages with upper primary, multiprimary and the single-teacher schools were selected for intensive study. Separate schedules were developed for various functionaries at village, block, district and state levels to study the administrative instructions and departmental regulations, to collect basic data related to the job chart of administrative functionaries, to study the effectiveness of the administrative personnel and to conduct interviews to obtain information about the functions performed by the administrative personnel.

The major findings of the study were: (i) In the absence of any system of regular annual census of the children in age-group 6-14 at the village level, the identification of non-enrolled children and drop-outs was not possible. (ii) The yearly enrolment drives did not yield desired results as the local community was not involved in increasing the enrolment and at the block level, enrolment was not assessed before the enrolment drive and there was no checking for increase in enrolment. (iii) The monthly scholarships for the Scheduled Caste and Scheduled Tribe children were ineffective as they were given only at the end of the session. (iv) Hostel facilities were not available for upper primary schools and many villages had no upper primary schools. In the tribal areas the number of Ashram schools and hostels was not sufficient. (v) To attract the non-enrolled to school, there were no adequate and effective incentives except the midday meal programme of the CARE and in the tribal areas free uniforms, textbooks and stationery. (vi) The response of the local community for providing school buildings and equipment was not encouraging. (vii) As the headmasters and the teachers lived at a distance from the schools, the incidence of late arrivals and truancy affected the co-curricular activities. (viii) Suggestions by inspecting officers were not seriously implemented and the Education Extension Officers did not have authority to enforce them. (ix) The school complex did not cover all the primary schools and was not effective to the desired extent. (x) The proforma of inspection of primary school did not include points regarding the census of children, non-attending children, drop-outs, incentives and involvement of the local commun-

ity, which were significant in relation to the UEE programme. (xi) Non-formal education centres run by the DEOs and voluntary organizations recorded only 50 per cent attendance as there was no coordination between the formal schools and the NFE centres due to inadequate supervision and monitoring. (xii) There was no provision of in-service training to teachers at the block level. (xiii) All the primary schools in a development block were run by Panchayat Samitis and the teachers and the Education Extension Officers were dissatisfied with the Panchayat Samiti administration. (xiv) The non-academic duties of the DEO prevented him from concentrating on elementary education. (xv) There was no coordinate effort of the Zila Parishad, DEO and various development departments and agencies in creating awareness among the society for UEE. (xvi) The administrative machinery in the Education Department at the secretariat level was ill-equipped for the programmes of elementary education in relation to universalization.

1345. NIEPA. *A Study of Administration of Elementary Education in relation to the Programme of Universalization in Uttar Pradesh*, New Delhi, 1979

The objectives of the study were: (i) to examine the adequacy of the present administrative system of elementary education in relation to the UEE programme in Uttar Pradesh, (ii) to suggest ways and means of strengthening and streamlining the administration of elementary education in Uttar Pradesh for the successful implementation of the UEE programme, (iii) to suggest ways and means of coordinating the efforts of Education Department with other developmental agencies in Uttar Pradesh in achieving UEE, and (iv) to suggest a framework for the decentralization of elementary education administration in Uttar Pradesh so that on-the-spot decisions could be taken and full involvement of the community ensured.

Four districts were selected, two each from the third and fourth quartiles after arranging the fifty-six districts in descending order in relation to school enrolment in the age group 6-11. Two blocks from each of the four districts, one with higher and the other with lower enrolment, were identified. One more block having concentrated population of the Scheduled Tribe was also included. Two or three villages from each block were selected for intensive study. In all, 24 villages were the focus of the indepth study. The sample had no non-formal education centres, therefore two NFE centres from

Unano district, one for men and another for women, were selected. Separate schedules were developed for various functionaries at village, block, district and state levels to study the administrative instructions and departmental regulations, to collect basic data related to the job chart of administrative personnel and to conduct interviews to obtain information about the functions performed by the administrative personnel.

The major findings of the study were: (i) At the village level regular census of the children in the age-group 6-11 was undertaken in the schools but in most cases information collected was incomplete and never used for increasing enrolment. The census records were not maintained in a systematic manner at village, block and district levels. (ii) It was difficult to accurately evaluate the influence of enrolment campaigns on increase in enrolment because of over-reporting of enrolment by teachers to fulfil their targets; even after the enrolment drive by the sub-deputy inspectors, there was no sample checking. (iii) Planned efforts to bring in non-enrolled, non-attending and drop-out children to schools were very inadequate. In the absence of records of the non-enrolled, non-attending and drop-out children at the block as well as the district level, efforts in the direction of UEE were not fruitful. (iv) As incentives were limited all the needy students were not benefited. The midday meal programme of the CARE had helped in retaining children, to some extent. (v) Most of the school buildings were inadequate and community participation in their maintenance and repair was not significant. Almost all the schools were ill-equipped and the contingency fund needed to be increased. (vi) Most of the Village Education Committees formed under the U.P. Basic Education Act, 1972, were not active. (vii) There was no coordination of school functionaries with personnel of other developmental agencies at the village level. (viii) A majority of the teachers did not reside at the place of their postings and were therefore unable to establish contact with the community for regular attendance of children and the organization of co-curricular activities. (ix) There was no flexibility in school timings to suit the local needs. (x) In the absence of a specific job chart for teachers, they did not take on any responsibility regarding enrolment and retention of children. (xi) DISs (Deputy Inspector of Schools) were the key officers in the administrative set-up as far as the UEE programme was concerned but were not effective because of constant occupation with non-academic work. (xii) At the block level, the SDIs had heavy duty of inspection resulting in inspections of a routine type with little guidance to the teaching community in improving the qual-

ity of education. The revised proforma also did not include points regarding drop-outs, incentives, etc., which were very important for the successful implementation of the UEE programme. (xiii) As regards training, most teachers in primary schools were trained. (xiv) Most non-formal education centres were located in primary schools. (xv) Students in these centres did not get any stipend, scholarship or other aids; however, they were supplied free books, slates and writing material. (xvi) The syllabi were prepared by the State and published with the help and collaboration of the Literacy House, Lucknow. (xvii) There was a Zila Basic Shiksha Samiti in every district constituted under the U.P. Basic Education Act, 1972, for planning and coordinating the educational activities at the elementary stage; the Adhikari was an appointing; punishing and promoting authority but had no powers to transfer any non-serious teacher without obtaining prior approval of the DISs. (xviii) The collection of statistics at the district level was done in an *ad hoc* manner and discrepancies were noticed in the reporting of statistics.

1346. NIEPA, *A Study of Administration of Elementary Education in relation to the Programme of Universalization in West Bengal*, New Delhi, 1979

The objectives of the study were: (i) to examine the adequacy of the present administrative system of elementary education in relation to the programme of universalization of elementary education, (ii) to suggest ways and means of strengthening and streamlining the administration of elementary education in West Bengal for the successful implementation of the UEE programme, (iii) to suggest ways and means of coordinating the efforts of the Education Department with the other developmental agencies in West Bengal for achieving UEE, (iv) to suggest a framework for the decentralization of administration of elementary education in West Bengal so that on-the-spot decisions could be taken and full involvement of the community in the programme was ensured.

Two districts which occupied the last and seventh position in the state in the matter of literacy were selected for the sample from which twenty-two schools (twelve and ten) were selected. In addition, five places in Midnapore district were visited to study non-formal education centres, the functioning of village school committees, hostel facilities and incentive schemes. Separate schedules were developed for various functionaries at

village, block, district and state levels to study the administrative instructions and departmental regulations, for basic data related to the job chart of administrative functionaries, to study the effectiveness of the administrative personnel and to conduct interviews to obtain information about the functions performed by the administrative personnel.

The findings of the study were: (i) Teachers, by and large, did not understand the importance of census and were unconcerned about the non-enrolled and dropped-out children of the village. According to the teachers of four sample schools who were involved in the census work, Scheduled Caste (SC) and Scheduled Tribe (ST) girls' enrolment was less than the enrolment of the girls belonging to the other castes, whereas the enrolment percentage of SC and ST boys was higher than that of the boys of other castes. (ii) As many as 104 per cent boys and 64 per cent girls of the age group 6-11 had been provided primary education facilities by 1977-78. (iii) The drop-out rate of SC boys and girls decreased within three years, i.e., 1975 to 1977, in the age group 6-14, but the drop-out rate of ST boys and girls was higher than that of SC boys and girls. (iv) Midday meals, free textbooks, free uniforms, attendance scholarships were the major incentives provided to students but as they were provided late their impact on the enrolment and retention of students in schools was not assessed. (v) No efforts were made, at any stage, by any agency either to bring about needed educational change or accept reforms that were indicated by the Government. (vi) The West Bengal Primary Education Act, 1930, still in vogue, provided the formation of attendance committee in the village schools: in many cases this committee was merely in name and did not function satisfactorily. (vii) Flexibility in the school schedule and holidays to suit the local needs were permitted subject to the prior approval of DIs. (viii) The panchayats played no role in education. (ix) In five circles covered under the study, 3 per cent primary schools were single-teacher schools; the State-level teacher-pupil ratio in primary schools was 1:41. (x) As many as 52 per cent primary teachers were untrained; no innovative measure to train a large number of untrained teachers was under consideration. (xi) The inspection of schools was hardly worth its name; being busy with non-academic work SIs were not able to provide any academic guidance to the teaching community. (xii) In the absence of any in-built system of the administrative set-up to assess the non-attenders and drop-outs it was difficult to successfully implement the UEE programme. (xiii) There was no provision for training or orientation of SIs for the recently introduced

non-formal education scheme. (xiv) Educational maps were not available at the district level. (xv) Hostel facilities supported by government funds attracted the socially deprived children and helped in their retention; thus, the facilities were fully utilized. (xvi) The rural schools suffered because the Circle Inspectors (CIs) had hardly any decision-making power. (xvii) The SIE, the academic arm of the government, had not been strengthened and empowered to generate and diffuse new ideas. (xviii) No coordination existed between the primary and the secondary directorates.

1347. NIPCCD, *Country Report on Child Development in India: Implications for Policy and Training*, New Delhi, 1980 (Sponsored by Social Welfare and Development Centre for Asia and the Pacific)

The main objectives of the study were: (i) to define perspectives for child development in the eighties, (ii) to indicate alternative strategies for the delivery of child development services, and (iii) to identify man-power and training needs for child development services.

The study covered the areas of demography, health and nutrition, child-rearing and education, the problems of handicapped children and trends in social change and development as related to the pre-school child in India. It was entirely based on secondary data.

The study revealed: (i) In proportion to the country's total population, children in the age group 1-3 accounted for 6.55 per cent in 1971 which would be reduced to 4.85 per cent under high variant and 3.91 under the low variant of future population growth; in the age group 3-6 their number was expected to decline to 68.4 million in 2001 A.D. (ii) By and large, women's participation rates in the employment force were not affected by the presence of young children; that of mothers with no children below five was 62.84 per cent while that of mothers with two children in the same age group was 59.21 per cent; working women had, on an average, 146 children below five years of age. Even in the urban areas the presence of young children did not affect the participation rates of women, the percentages were 19.16, 10.01 and 16.71 for women with no children and one and two children below five, respectively. (iii) The district and state-wise variations in the pattern of population growth predicted for the future indicated the need for evolving region-specific programmes and services for children. (iv) In Punjab, children were ill eleven per cent of the time with respiratory infections, 6 per cent with diarrhoeal diseases, 6 per cent with eye infections and 4 per cent with

fevers; although only 4 per cent pre-school children were severely malnourished, they accounted for 20 per cent of children's deaths. The higher caste pre-school children were at a better nutritional level. (v) As regards the tribal and the non-tribal children in Madhya Pradesh, 28 per cent in the age group 3-6 years were severely malnourished, the highest percentage of severely malnourished, followed by West Bengal and Maharashtra. (vi) The opportunity costs of travelling to a PHC or hospital at a distance, the waiting, unpleasant behaviour of the staff, inadequate medicines as well as demand for payment for the services drove the community to traditional healers for most of the children's diseases. (vii) The programmes of education focussed on the 6-14 age group and left pre-school education to voluntary and private agencies. In the Third Five Year Plan the government recognized the need for pre-school education as a base for the national system of education and the Balsevika Training Programme was started in 1961-62 to train multi-purpose child welfare workers as functionaries in the programmes for pre-school children; the Child Care Committee focussed on the need for voluntary efforts in the fields of health, nutrition, education and recreation services while pre-schools were started by voluntary organization with adequate assistance from the Government. (viii) The Integrated Child Development Services (ICDS) schemes were started in 1975-76 for providing a package of services including health, nutrition and pre-school education for children under six years and related supportive programmes for women; it was initially started for three experimental blocks and by 1979 operated in 150 blocks. (ix) Two States, Rajasthan and Maharashtra, adopted pre-school education as a state subject and the pre-primary section was attached to several primary schools in Rajasthan along with orientation and refresher courses by the NCERT for the primary school teachers. (x) The studies to assess the functioning of pre-school programmes emphasised comparison of programmes rather than providing recommendations for the improvement of existing programmes. (xi) There was wide variety in the nature of teacher training programmes for pre-school education; they were in the area of methods, duration of training, minimum requirements, nature of practical experiences and nature of the courses, theoretical and academic, while others were predominantly practical. (xii) Though quite a few training institutions were promoting pre-school education for the handicapped, official policies did not include any acknowledgement of the priority needs even though it was the most important means of facilitating its integration into schools for nor-

mal children.

- 1348.** NIRMALA, L., *A Survey of the Work done by Voluntary Organizations for Education and Training of Physically Disabled in Karnataka*, 1981

The main objectives of the study were: (i) to assess the nature and extent of work done and its relevance to the needs of the disabled, (ii) to analyse the various kinds of needs of the disabled and to find out the gaps therein, (iii) to examine the problems faced by voluntary organizations in carrying out their work, and (iv) to assess the extent of benefits accruing to the really needy disabled.

The sample included nine institutions. The case study approach was adopted for the investigation. The tools used for undertaking the case study were documentary analysis, report analysis, interviews and questionnaires. Each case study provided the objectives of the institution, the activities it undertook, the type of education and training it provided, the support provided to obtain employment for the disabled and financial assistance provided to the disabled.

The major conclusions of the study were: (i) The various voluntary organizations did not work in coordination with each other. (ii) Job placement was not adequate. Many trained handicapped were jobless. (iii) In the training centres, there was no job assurance given to the trainees at the end of the training period. (iv) The institutions did not cover rural areas adequately and effectively. The disabled in the rural areas were not aware of the facilities available to them. (v) The organizations did not have a planned programme of direct contact with the public. (vi) The government grant was not received in time and it was inadequate. (vii) Lack of space and lack of funds were major problems. (viii) There were no libraries for the blind.

- 1349.** PANDE, R.C., *A Study of the Dimensionality and the Differences in the College Environment of Garhwal University*, Ph.D. Edu., Garh.U., 1980

The specific objectives of the study were: (i) to construct college environment scale (one each on the five dimensions as defined by Pace) and a sub-scale on campus morale, (ii) to make a comprehensive analysis of the institutional scores, on the different scales, sub-scales and factors, (iii) to interpret the institutional scores on each dimension and on each factor and develop an environment profile for each college, and (iv) to provide valid

and reliable college environment scales.

The sample of the study consisted of 2,200 students, randomly selected from the ten affiliated and three constituent colleges of Garhwal University, having a minimum experience of one session on the campus. Tools were self-designed college environment scale, a sub-scale on campus morale and ten additional items related to the burning problems. F test and t-test were used for analysing the data.

The important findings of the study were: (i) Campus morale was dominant in eight colleges while, among the dimensions, propriety ranked highest in the government as well as other types of colleges. (ii) Scholarship with regard to top position in any two colleges was poor. (iii) The colleges significantly differed from one another on the basis of their environment. (iv) The female students were significantly well disposed towards their college than their male counterparts. (v) The low achievers showed a significantly better image of their college environment than the other two categories of achievers. (vi) The geographical location of a college was not a distinguishing feature of the environment. (vii) The university-managed colleges were able to provide a better educational environment than the government and privately managed.

- *1350.** PANDEY, B., *A Study of the Problem of Universities in U.P. and Remedial Measures adopted since 1947*, Ph.D. Edu., Gor.U., 1982

The study was primarily concerned with sorting out the problems of university education in Uttar Pradesh since Independence and finding out remedial measures that were taken by the administration for the improvement of worsening conditions.

The reports of various Commissions set up by the Central and State Governments were studied for having a general view of the main problem areas. The data regarding the number of colleges and universities in U.P., enrolment of students, funds provided to the institutions established before and after 1947 were taken from the government agencies and the universities. The phenomenal rise in the enrolment of students in the institutes of higher education after Independence, the increment in the number of institutions in the context of population growth, and fund granted to the institutions were analysed statistically.

The study revealed that every aspect of tertiary education in U.P. was problem-ridden. Difficulty in the formulation of aims, choosing the medium of instruction,

inadequate research and accommodation facilities, lack of adequate funds and difficulty in following the rules for the affiliation of colleges emerged as the main problems. The remedial measures taken by the government and universities proved to be inadequate.

- 1351. PANDEY, R.D.**, *A Study into the Relationship between the Organizational Climate of Garhwal's Secondary Schools Perceived by the Teachers and Their Adjustment Problems*, Ph.D. Edu., Garh. U., 1981

The objectives of the investigation were: (i) to study the organizational climate of government and private secondary schools of Garhwal region, (ii) to identify different problems related to the adjustment of the secondary school teachers, (iii) to trace out the relationship between the organizational climate and the teachers' level of adjustment, and (iv) to analyse the perceptions of the secondary school teachers related to the organizational climate and problems of adjustment.

A sample of 30 per cent secondary schools was randomly selected from each of the five districts of Garhwal Mandal. The sample consisted of 500 teachers from twenty-eight government and private secondary schools of both the sexes located in the rural and urban areas. Organizational Climate Descriptive Questionnaire and Adjustment Inventory were administered to the subjects in order to collect data which were analysed using mean, standard deviation, coefficient of correlation and t-test.

The main findings of the study were: (i) A significant negative relationship between the total scores on the organizational climate and social adjustment was identified. (ii) The government secondary schools had better organizational climate than private secondary schools. (iii) The girls' secondary schools were better in organizational climate than the boys' secondary schools. (iv) Similarly, the secondary schools of urban areas were better than those of rural areas with respect to organizational climate. (v) The teachers of the government secondary schools were more well adjusted than those of private secondary schools in the areas of home, social and educational adjustment whereas they had similar levels of adjustment in emotional and health areas. (vi) The teachers of girls' and boys' schools were almost similar in the areas of health and emotional adjustment. The male teachers had poor family and educational adjustment than their female counterparts whereas the female teachers had more problems related to social adjustment. (vii) The teachers working in the secondary

schools of urban areas had less problems related to home and social adjustment than those of the secondary schools of rural areas whereas these teachers were more well adjusted in the areas of emotional, health and educational adjustment than their counterparts of the urban schools.

- 1352. PANDEY, V.**, *Rashtriya mahavidyalayon main sansthatmak parivartan (Institutional Changes in National Institutes in Hindi)*, Ph.D. Soc., Kashi Vidyapith, 1975

The objective of the investigation was to find out institutional changes in national institutions. It was a historical-cum-survey type of work. A questionnaire and an interview were employed for the collection of data and arriving at generalizations. A sample of 500 subjects comprising teachers, students, administrators, advocates, political party workers and clerks was drawn for the administration of the questionnaire and 100 individuals were randomly selected for interview. All the subjects were directly or indirectly related with the national institutions selected for the study. Kashi Vidyapith had been studied through all the three methods and other institutions like SNTD Mahila Vishwavidyalaya, Vishwa Bharati and Jamia Millia Islamia had been studied only historically.

The main findings of the investigation were: (i) The national institutions were established as a reaction to British educational policies in India. (ii) The environmental, and socio-political conditions at the time of the establishment of these national institutions were quite different from the present-day conditions. (iii) The aims of these national institutions were to change the educational set-up of the country and to oppose the imperialist British educational policy. (iv) These national institutions succeeded neither in developing a sound national educational system nor in changing and eradicating the imperialistic system of education prevailing all over the world. (v) After Independence, the institutions lost sight of their original aims and objectives and became rootless. (vi) There was a growing demand in the institutions to bring them at par with other universities with regard to their courses of study, award of degrees, organizational and administrative set-up and salaries and emoluments given to their teaching and non-teaching staff. (vii) By 1970, these demands took the shape of strong movements and the government started giving these institutions the status of universities. (viii) The results obtained by the questionnaire and the interview supported

the findings and indicated a trend that these institutions were changing rapidly and losing their uniqueness due to the urge to be at par with other universities in all institutional matters.

- 1353.** PATEL, C.K., *A Critical Study of the Higher Secondary School Organization in Gujarat State with Special Reference to Vocational Education*, Ph.D. Edu., Guj. U., 1980

The investigator, after reviewing the practice of vocational education in Gujarat till 1976, studied its provisions in the new higher secondary pattern introduced in 1976. He constructed a questionnaire and revised it through the responses of thirty higher secondary schools in March 1978. The questionnaire was replied to by 210 respondents out of whom 90 were from urban areas and 120 from rural areas. The answers to various items of the questionnaire were tabulated systematically and converted into percentages. The investigator also visited some higher secondary schools to personally collect the data. The first part of the questionnaire dealt with the qualifications of the headmasters and their participation in the teaching programme. The second part sought information about the adequacy of the building, the streams taught in the school, the condition of the laboratory, various physical facilities available in the school, the adequacy of the library, the crafts provided in the vocational stream, the facilities for teaching the vocational crafts, the qualifications of the teaching staff and the financial provisions.

The main observations were: (i) There was no clear guidance in organizing the higher secondary classes and the frequent changes in the policy puzzled the heads. (ii) No orientation was given to the teachers while upgrading the school. (iii) The supernumerary teachers from colleges employed were not sincere in teaching the subjects or in dealing with the pupils. (iv) Students blindly rushed to the commerce stream, creating scarcity in arts and science streams. (v) As the grant given by the government was too small, good facilities for providing more and more vocational crafts could not be given.

- 1354.** PATEL, H.C. and DEWAN, M.L., *A Study of Drops-outs from Full-time Diploma (Engineering) Courses in Shri Bhagubhai Mafatlal Polytechnic*, Bombay, SBM Polytechnic, Bombay, 1981

The study aimed at understanding the pattern of the

drop-outs from Shri Bhagubhai Mafatlal Polytechnic and ascertaining the aspects of the problem like magnitude, dimension and possible reasons and corrective measures.

Detailed records of students from the date of entry to the date of leaving the polytechnic were maintained. Records of five years were analysed. The drop-outs at various stages as well as their distribution according to the categories, entry qualifications, etc., were noted. In the case of the drop-outs due to failure in the examinations, their results were analysed.

The major findings of the study were: (i) A majority of the drop-outs were at the end of the first year (second semester) or at the beginning of the second year (third semester). (ii) The students who were allotted courses of their last preference (viz. civil engineering) left the course when the course allocation was done at the beginning of the second year (third semester). (iii) The rate of the drop-out reduced from the year when course allocation was done at the time of admission. (iv) Drop-out from among students with S.S.C. technical qualifications were comparatively less. (v) The drop-outs from the students with H.S.S. (Class XII) qualifications were mainly due to their getting admission to the degree course in engineering with additional weightage after completing the first year of diploma courses. (vi) Total drop-out was 23 per cent and its category-wise distribution was: open category 23.6 per cent, Scheduled Caste 27 per cent, Scheduled Tribe 14.2 per cent, DT/NT 28 per cent, other backward communities 19 per cent. (vii) A majority of the students who dropped out due to failure were found to have failed in mathematics.

- *1355.** PATIL, W.R., *The Survey of Education in Osmanabad District in 1977-78*, Ph.D. Edu., Poona U., 1981

The survey traced the position of education at pre-primary, primary, secondary, higher secondary, university, technical, adult and teacher education levels in the year 1977-78. The objectives of the investigation were: (i) to study the geographical, economic, social and industrial conditions of the people in Osmanabad district, (ii) to make a historical review of the educational progress in the Osmanabad district in the above-mentioned levels of education, (iii) to obtain a clear picture of the existing facilities at the levels of education being studied, (iv) to study the problems faced by the educational institutions and the educational workers at those levels, and (v) to offer some suggestions from the point of view

of improving the educational facilities and thereby the lives of the people.

A questionnaire on the gradation of the schools was constructed by the State Institute of Education for determining the qualitative and quantitative aspects of primary schools. A similar tool was used for the secondary schools. Interviews of administrative officers, heads and teachers of schools and colleges and social workers in the district were conducted to gather other necessary information.

The findings of the investigation were: (i) Educational institutions were located where the means of communication existed. So improving the means of communication was suggested for the spread of education in this backward district of Maharashtra. (ii) Only thirty-nine pre-primary schools were recognized. Many of the non-government pre-primary schools were run by individuals who were not trained or qualified. (iii) Many primary schools lacked the basic facilities like books, equipments, etc. The need for trained teachers and administrators who could work with confidence and devotion, was felt. (iv) A bulk of the secondary schools were teaching the general curriculum without any vocational subjects. Most of the teachers were trained. However, it was felt that there was need to change the attitudes of the teachers and administrators. (v) The teacher-pupil ratio at the university level was 1:17.5. Facilities for sports, vocational guidance and library were adequate. However, the teachers lacked the knowledge of teaching techniques. Collegiate education was concentrated at Latur and Udgir. It was felt necessary to spread the facilities of higher education all over the district. (vi) The number of junior colleges for teacher education, which was seven, was more than adequate, taking into consideration the need for teachers in the district. It was, however, felt that the teachers were in need of reorientation regarding the latest developments in their subjects. (vii) Only eleven high schools and six higher secondary schools had technical branches. The Industrial Training Institute at Latur and the Purnamal Lahoti Government Polytechnic were the two institutes of technical education which were adequately staffed and equipped. (viii) Adult education programme was started in the district in the year 1977-78. The curriculum of adult education needed to be based on day-to-day problems of the adults.

- 1356.** PILLAI, G.V., BENJAMIN, J. and NAIR, K.R., *A Study of Drop-outs in Primary Education in Kerala*, State Planning Board, Government of

Kerala, Trivandrum, 1980

The main objectives of the study were: (i) to estimate the rate of drop-out in primary education in Kerala, and (ii) to identify the socio-economic causes leading to drop-out.

The study was based on a sample survey. The sample consisted of twenty-eight lower primary schools and twenty-eight upper primary schools selected from twenty-eight educational subdistricts with due representation to highlands, midland and coastal regions in the State. Standard-wise enrolment figures and the number of drop-outs in each class were collected from the selected schools. The details of enrolment and drop-outs collected from the fifty-six schools for the year 1976 were utilized for estimating the percentage of drop-out. A sample of drop-outs from each of the selected schools was chosen for detailed household enquiry. The households of 479 selected drop-outs were contacted for filling in the proforma designed for the purpose.

The major findings of the study were: (i) The rate of drop-out in the lower primary stage was 10 per cent and in the upper primary stage it was 9.2 per cent. (ii) The percentage of drop-out was higher among boys than among girls. (iii) The drop-out percentage was the highest in Standard I and the lowest in Standard V. (iv) The percentage of drop-out was higher among the children in the age group 5 to 10 than in the age group 10 and above. (v) Students belonging to SC, ST and other backward communities constituted the majority of the drop-outs (69 per cent). (vi) The main reasons for drop-out were ill health, household work and poverty, in that order. (vii) Large size of the family was exerted a notable influence on the drop-out, since the rate of drop-out was very high in the case of children belonging to families with six or more members. (viii) Lack of education of the parents was a factor which increased the tendency to drop-out. (ix) A majority of the drop-outs were children of casual labourers. (x) Nearly a quarter of the drop-outs enumerated were engaged in some occupations such as household work and casual labour.

- *1357.** PILLAI, J.K. and MOHAN, S., *Impact of Correspondence Education on Society*, Dept. of Edu., MKU, 1983 (MKU-financed)

The main objectives of the study were: (i) to analyse the impact of correspondence education on those who had successfully completed their courses through correspondence in terms of economic, social, occupational,

psychological and educational indicators, (ii) to find out the social, economic, occupational, psychological and educational benefits expected by those who were undergoing correspondence education, (iii) to estimate the reactions of the elite public to correspondence education, (iv) to estimate the reactions of students of regular colleges to correspondence education, and (v) to analyse the data available in the Institute of Correspondence Course and Continuing Education and find out to what extent and what categories of people the correspondence education had served.

Data were collected from a random sample of 3,000 students representing those who had successfully completed correspondence course and those who were undergoing correspondence education during the year 1981-82, 400 students attending regular colleges and 50 representatives of the public from all walks of life using questionnaires and an interview schedule.

The significant findings of the study were: (i) According to those who had undergone correspondence education maximum impact was in the category of social well-being. They said that it had been possible to improve their status and they had utilized their leisure time with advantage. (ii) The next impact was in the category of educational well-being. The participants reported that they were able to improve their qualifications and had opportunities to learn more in their respective fields of interest. (iii) About 18 per cent of the participants stated that correspondence education led to occupational betterment by way of better job opportunities, career promotions, occupational change, and business improvement. (iv) Eleven per cent of the participants felt that they derived financial benefits through correspondence education. (v) Ten per cent of the participants stated that correspondence education improved their ability to write better and it also instilled in them a desire to learn further. (vi) The general opinion of a random sample of the pupils from all walks of life was that correspondence education did give a second chance to people who missed higher education, such as housewives, physically handicapped, those who did not get seats in regular colleges for various reasons and those who had to take up employment early in their lives. (vii) One group of people on whom psychological and social impact had been greatly felt was a group of prisoners in the eight central jails of Tamil Nadu. (viii) An analysis of the successful candidates from the data supplied by the Institute of Correspondence Course and Continuing Education indicated that people from all walks of life took advantage. Of them 26 per cent were teachers, 21 per cent unemployed people, 9.5 per cent self-employed people, 7

per cent housewives, 5 per cent bank employees and the rest a miscellaneous group. (ix) A random sample of college-going students between the ages of 17 and 23 said that they preferred to study in regular colleges as they felt that they would be able to learn better only with some guidance and goading from teachers.

1358. PILLAI, J.K. and PILLAY, G.S., *Working of the Semester System*, Dept. of Edu., MKU, 1979 (MKU-financed)

The main objectives of the study were: (i) to assess the working of the semester system in colleges, (ii) to estimate the reactions of principals, parents, teachers and students to the semester system, (iii) to assess the internal assessment procedures, and (iv) to suggest modifications needed for the efficient working of the semester system.

The sample of the study consisted of 400 teachers, 600 students and 100 parents drawn from Madurai Kamaraj University area. A Semester Evaluation Questionnaire (SEQ) prepared by the investigators was used to collect the necessary data. The questionnaire incorporated the five major aspects of the semester system, such as objective, methodology, administration, evaluation and values. The questionnaire was supplemented by interviews with a part of the sample to collect further information about the working of the semester system. The test was used to analyse the data.

Some of the significant findings of the study were: (i) The principals, parents, teachers and students were in favour of the semester system. (ii) The urban students, particularly women students, highly favoured the semester system as compared to the rural and male students. (iii) The arts and commerce students were more in favour of the semester system than the science students. (iv) There was no significant difference in opinion between the teachers and the students about the semester system. (v) Nearly 84 per cent of the teachers and the students agreed that the semester system helped the students to study throughout the year. (vi) Though 88 per cent teachers claimed that sessional work in the semester system was pre-planned and worked according to the time-table, nearly one-fourth of the students did not agree to it. (vii) About 25 per cent students indicated that seminar and other new techniques of teaching and learning had not been properly conducted in their colleges. (viii) Whereas the teachers claimed that they had been fair in the internal assessment of the students, 34 per cent of the students did not agree to it. (ix) Even

after the introduction of the semester system, disciplinary problems continued to exist in men's colleges.

- 1359.** PILLAI, J.K., and THANGASAMY, S., *Vocationalisation at the Higher Secondary Stage of the 10 + 2 + 3 Pattern of Education*, Dept. of Edu. MKU, 1981 (NCERT-financed)

The aims of the project were: (i) to conduct a vocational survey in Madurai district, (ii) to identify and select vocations in which there were opportunities for employment or self-employment either at present or in the immediate future in Madurai district, (iii) to devise curricula for a few need-based vocations as per priority given by students, teachers and the public/parents, and (iv) to undertake an opinion survey to find out the reactions of students, teachers and the public including parents and industrialists towards the working and efficacy of vocationalization at the + 2 stage in the higher secondary schools of Madurai district.

The project involved conducting of a vocational survey in and around Madurai to assess the employment areas and potentiality by identifying need-based vocations. One unstructured questionnaire called Vocation Identification Questionnaire - I (VIQ-I) and another unstructured questionnaire known as Vocation Identification Questionnaire - II (VIQ-II) were constructed and used in the survey. On the basis of the 40 vocations identified, an inventory called Vocational Choices Inventory (VCI) was developed and administered to three independent samples of 1,000 parents/the public, 200 teachers and 1,000 students. The three different samples were required to select any three vocations as most important and rank them first, second and third in order of preference. Chi-square was used to find out the significant difference in the preferences for each vocation among the students, the parents/public and teachers. Curriculum was developed for five vocational courses. A public opinion survey was also undertaken with a checklist on a sample of one hundred vocational stream students who had just completed +2 course, a sample of sixty teachers who handled classes for the vocational stream and a sample of one hundred persons of the public including parents and industrialists.

The major findings and outcomes of the study were: (i) The match industry and fire works, design with plastics, polythene packing materials, distemper, varnishes and paint-making, concrete and cement works, stainless steel utensils, motor cycle, and scooter technology, soaps and detergents, aluminium spinning, soft drinks

and fruit beverages, paper decorations (origami) and bricks and tiles were the most need-based vocations for Madurai district. (ii) The Curricula were developed for five vocations, namely, motor cycle and scooter technology, aluminium spinning, manufacture of stainless steel utensils, soft drinks and fruit beverages and distemper, varnish and paint-making. (iii) Only 15 per cent of the students expressed their desire to set up their own workshops/factories/industry after completing the vocational stream. (iv) About 25 per cent of the students expressed their desire to seek employment in private/public enterprises. (v) Of the vocational stream students, 40 per cent intended applying to arts/science or professional colleges after the completion of the +2 study. (vi) As many as 65 per cent of the vocational stream students wished to do an advanced course in the specialization they had just completed at the +2 stage. (vii) Lack of finance or capital seemed to be a serious handicap to about 60 per cent of the vocational stream students for setting up their own business/factory. (viii) Only 20 per cent of the teachers and the public felt that the students had been trained adequately to start their own business independently or to join any public/private enterprise straight away. (ix) About 55 per cent of the teachers and the public felt that the vocational stream of the higher secondary stage could be better extended to the +3 stage also at the collegiate level. (x) The vocational stream was considered more suitable for less able students and the academic stream for better students by 65 per cent of the teachers and the public.

- 1360.** PILLAY, G.S., *Impact of Non-graded Units upon Primary School Drop-outs*, Dept. of Edu., MKU, 1982 (NCERT-financed)

The aims of the study were: (i) to appraise the impact of the non-graded units in minimizing the wastage in primary education, (ii) to find out the reactions of teachers to the non-graded units, (iii) to identify the practices in the non-graded primary schools, and (iv) to find out the facilities provided in Standards, I, II and III.

A sample of 875 teachers was selected from the sample of 150 primary schools of the four southern districts of Tamil Nadu: Madurai, Ramnad, Tirunelveli and Kanyakumari. Data were gathered with the help of an enrolment enquiry proforma, a non-graded unit reaction scale along with an interview schedule developed for the study.

The findings of the study were: (i) The non-graded units introduced in the primary schools of Tamil Nadu

helped minimize the number of drop-outs. (ii) The teachers favoured the non-graded units. (iii) Additional work was not given to the gifted who completed their work earlier nor was special attention paid to slow learners. (iv) The grouping of the pupils according to their talent and interests, as envisaged for the effective functioning of non-graded system, was not carried out. (v) Teaching was given to the entire group and not individuals or small groups. (vi) Assignments were not given on the basis of talent and interests. (vii) Pupils' individual progress record was not maintained nor was continuous testing done. (viii) Most teachers were not oriented for the non-graded system. (ix) The teachers were not convinced that pupils' performance improved with the introduction of the system. (x) Standards I, II and III were not considered a single unit as separate time-tables were prepared for each of the classes. (xi) Since a minimum of 75 per cent attendance was required for promotion of students from Standard III to IV, only 45.76 per cent students were promoted to Standard IV in May 1981. (xii) Stagnation in Standard III increased with the introduction of the system. (xiii) All concerned, namely, teachers, pupils and parents, were frustrated with the system resulting in lack of motivation.

1361. PLANNING COMMISSION, *Factual Survey of Junior Technical Schools*, New Delhi, 1964

The objective of the study was to find out number of the students trained at the Junior Technical Schools, number of those employed in industries and of those who joined the polytechnics and other institutions.

Each of the thirty-nine Junior Technical Schools in seven States — Andhra Pradesh, Madhya Pradesh, Uttar Pradesh, Kerala, Punjab, Tamil Nadu and West Bengal — was considered. Information was also received from four additional junior technical schools which had started functioning in 1961-62. The questionnaires covering details about admission, utilization of facilities and employment pattern of the turn-out were sent to schools wherein 7,319 students comprising two batches were covered whereas the data of only 5,541 students were usable. However, complete information was available for only 3,221 students. The total turn-out of the Junior Technical Schools under the survey was 1,141 students and information regarding post-educational career was available for 515 students. The utilization of facilities was considered in terms of number of students who passed at the end of three years and wastage was considered in terms of drop-outs and failures.

The major findings of the study were: (i) Out of the

thirty-nine Junior Technical Schools, ten were attached to polytechnics and one to a central workshop. The remaining twenty-eight, 72 per cent, were independent Junior Technical Schools. (ii) Fifty-six per cent schools had an annual admission capacity of 41-60 students, 5 per cent admitted fewer than 20 students each, 23 per cent admitted 21-40 students each while 14 per cent admitted over 60 students. (iii) Out of 5,451 students admitted in JTSs, 608 (11 per cent) had secured 60 per cent and above marks, 2,975 students (51 per cent) had secured between 40 and 60 per cent and 2,048 students (38 per cent) had got marks less than 40 per cent, suggesting that JTSs admitted students of average and below-average performance. (iv) In the final examination, 1,856 appeared but 1,141 students were successful, resulting in a utilization co-efficient of 35.5 per cent. (v) The total wastage of facilities was 2,080 seats, 64 per cent of the total admissions; 1,365 students were drop-outs (65.6 per cent) and 715 were failures (42.4 per cent), the pass percentage being 61.5. (vi) The percentage of the drop-outs was the highest in Uttar Pradesh (56.5 per cent) and West Bengal (56.2 per cent) and the lowest in Madras (Tamil Nadu). (vii) In West Bengal, failure in the examinations contributed less than 6 per cent of the total wastage whereas in Madras (Tamil Nadu) it was 76 per cent. (viii) Out of 515 students passing out of the Junior Technical Schools, 250 (49 per cent) joined industries; 233 (45 per cent) joined polytechnics for higher technical education; 16 students (3 per cent) joined colleges for pre-university courses and other departments like defence, technical education and railways. (ix) Of the 250 students who joined industries after the Junior Technical School course, 180 students (72 per cent) were from Uttar Pradesh, Punjab and West Bengal. The corresponding percentage in Kerala was 26.1 and in Madras (Tamil Nadu) 26.3. The percentage of the students going in for higher education was 74 of the turn-out in Kerala and Madras (Tamil Nadu.)

***1362. PRASIT, N., *Role of the University Rector in Educational Decision-making in Thailand*, Ph.D. Edu., Pan. U., 1982**

The major objectives of the investigation were: (i) to study the structure of decision-making and the process of Thai rectors' role in educational administrative systems, (ii) to study the effectiveness of decision-making of the rectors in the Thai University administrative system, and (iii) to find out ways and means to make the decisions of the rectors more acceptable and implementable.

The sample of the study comprised 130 Thai university administrators, selected on stratified basis, from eight levels of respondents classified into three groups, namely, rector group including thirty-three cases, dean group consisting of seventy-three cases, and senior staff members' group consisting of twenty-four cases. The study was structured on the normative survey pattern. The tools used were Structured Interview in the form of a checklist and a questionnaire, both prepared by the investigator himself. The statistical techniques employed for data processing were percentage, mean, standard deviation, F-test, t-value, chi-square, analysis of variance and method of correlation coefficients by Kendall and Spearman.

The major findings of the investigation were: (i) The university rectors' role in educational decision-making was limited only to carrying out their duties according to the State University Act. (ii) In educational decision-making they had enough membership tenure to play their roles, 2 to 4 years. (iii) The university rectors needed experts for setting the targets of higher education budgets and they expended the educational budgets towards the targets lavishly. (iv) They overhauled the administrative policies and had done well at both the administrative and the academic fields. (v) They carried out the tasks of educational decision-making according to the philosophy formulated by the University Civil Service Commission (UCSC), and they agreed with the authorities to use modern technological demonstrations for the same. (vi) They found educational decision-making very difficult under the administrative complexity. (vii) The university rectors got more opinions from their personnel in educational decision-making. (viii) They conducted a comprehensive study by discussing some problems with their staff and committees, and thought about creative choices, before any decision on higher education was made. (ix) The university rectors concentrated on higher education development programmes for social work. (x) They endeavoured for more hold on administration. (xi) The educational problems of several principles of higher education were decided by the university rectors. (xii) There were more facilities for the Central University Rectors in educational decision-making than for the Regional University Rectors. (xiii) In decision-making they adopted a democratic process, and they subscribed to the modern philosophy and goals of education.

bal Areas of Andhra Pradesh, Tribal Cultural Research and Training Institute, Hyderabad, 1971

The objectives of the study were: (i) to measure the magnitude of absenteeism, wastage and stagnation in primary schools, (ii) to determine the relative significance of the causes of these problems in different tribal areas of Andhra Pradesh, and (iii) to determine the relative significance of the causes of the problems in different tribal areas of Andhra Pradesh.

The sample consisted of fourteen primary schools managed by government, samithi and private management (aided). These schools were selected randomly from Srikakulam, Visakhapatnam, East Godavari, West Godavari and Chittoor districts of Andhra Pradesh. Secondary and primary data were collected through three questionnaires, viz., School Questionnaires, Teachers' Questionnaire and Parents Questionnaire. The respondents included both teachers and parents of the tribal students. Ten tribal parents of the selected schools were contacted and data collected from them. Five years' period was taken to calculate the percentage of wastage. The year 1963-64 was selected as the base year for the collection of data on absenteeism and wastage. Data were also collected from admission registers of the schools. Mean, percentage and correlation were employed to analyse the data.

The study yielded the following findings: (i) Among the girl students, absenteeism was more pronounced than among boys, the respective percentages of absenteeism being 40.50 and 30.50. (ii) The incidence of absenteeism was highest with 35.83 per cent, 38.84 per cent and 35.83 per cent in Standards I, II and III, respectively. The highest absenteeism was observed in January followed by April, October and February while the lowest was recorded in the month of August followed by June and July. Absenteeism was conditioned by the cycles of agricultural operations, festival celebrations, marriage ceremonies, etc. (iii) Absenteeism and stagnation jointly and severally, to a large extent, contributed to wastage. In all the schools more than 40 per cent of the students were stagnated. (iv) Absenteeism and stagnation was more acute among girl students than among boys. (v) The government schools showed the highest percentage of wastage followed by the panchayat samithi schools. The aided schools showed minimum percentage of wastage. (vi) The average percentage of wastage among boys was 58.06 and among girls it was as high as 83.66. (vii) Child labour both paid and domestic was the most important contributing factor responsible for absenteeism, stagnation and wastage. Indifference

of both the parents and the students towards education was another common factor contributing to wastage.

- *1364. PUTTASWAMIAH, K. and SRIKANTIAH, B.C., *Evaluation of Artisan Training Institutes in Karnataka*, Planning Department, Government of Karnataka, Bangalore, 1974

The main objective of the study was to assess the working of the artisan training institutes in the State of Karnataka and suggest measures for their better working.

There were twenty-two main centres and nine sub-centres in the State at the time of conducting the study, and they were spread over eighteen of the nineteen districts. Detailed case studies were made for six of these centres. These six centres were located at Nagamangala, Chitradurga, Sagar, Kumta, Siruguppa and Bidar. Preliminary information was obtained from the Department of Industries and Commerce. Further data were collected from the same department through a questionnaire prepared after the study of the preliminary data supplied by them. Information was obtained from the selected centres through a questionnaire specially designed for the study. The selected centres were visited for an on-the-spot study to assess the progress of the centres. Discussions were also held with the concerned officers during the visits and the observations were recorded.

The major findings of the study and suggestions were: (i) Eighteen out of the nineteen districts in the State had at least one centre for artisan training. It was only in Coorg district that there was no such centre. (ii) The response for admission had been very poor. There was considerable gap between the sanctioned strength and the number of candidates admitted. (iii) The stipend now paid to the candidates was not adequate. It might be increased from Rs.40 to Rs.60 during the institutional training and from Rs.50 to Rs.75 for in-service training. (iv) Hostel facilities should be provided to the candidates coming from rural areas. (v) The institutions experienced considerable difficulty in getting the raw materials. (vi) The metal industry in Nagamangala was deteriorating. In addition to training the candidates in manufacturing old types of idols, gods and goddesses, they should be trained in the manufacture of utility articles. (vii) The syllabus should be revised in all the crafts in the artisan training institutes to suit the modern standards, and the duration of training should be increased. (viii) There were a considerable number of drop-outs in

the middle from all the institutes. (ix) In order to increase the production and sale of articles the training institutes must be converted into production-cum-training centres. The candidates after the completion of the institutional training should be given in-service training in the production unit so established. The trained candidates should be employed in the production unit on daily wage basis or piece work wage basis, thereby creating employment opportunities to the trained candidates. (x) Some artisan training institutes were located in government buildings and others in private buildings. Power had not been supplied and machinery could not be installed in some of the centres. (xi) The candidates after completion of institutional training did not go to far-off places for in-service training. Hence, arrangements might be made to impart in-service training to the candidates in the respective artisan training institutes. (xii) The candidates in certain crafts in some institutes were suffering for want of staff. Instructors in other crafts were looking after the candidates. (xiii) At Siruguppa, though leather stitching craft was not existing, there was an assistant instructor in leather stitching. (xiv) Tool kits had not been provided to the trained candidates. In order to provide incentives to the trained candidates and induce them to settle in rural areas, tool kits must be provided to the candidates who successfully completed the training. (xv) There was no follow-up action even though it was one of the main objectives of the scheme.

1365. RAJAMMAL, T., *A Critical Study of Inspection and Supervisory Practices at Secondary School Stage in Tamil Nadu*, Ph.D. Edu., Kar. U., 1981

The specific objectives of the investigation were: (i) to analyse Tamil Nadu Inspection Code, the Grant-in-aid Code and educational rules with a view of finding out the expected role of secondary school inspection, (ii) to study the inspection proformas now used in the State to evaluate secondary schools, and analyse a sample of inspection reports of the secondary schools in the State for the year 1979-80, (iii) to study the expectations of inspecting officers, headmasters and teachers of secondary schools regarding the present inspection practice, and (iv) to develop an instrument (inspection proforma) for the evaluation of secondary schools.

It was a combination of historical, descriptive and experimental research. Questionnaire, interview and content analysis were the techniques used.

The major findings of the investigation were: (i) Specific instructions regarding the inspection of func-

tional aspects of the school programmes were not given in the code or manuals. (ii) Inspection depended largely upon the subjective views and observations of the inspecting officer as the proforma was not comprehensive and objective. (iii) The analysis of the written reports of inspection revealed that less weightage was given to the functional part of school programmes and more to the factual data such as the number of books in the library, the number and kinds of audio-visual aids, the number of pupils in N.C.C., scouts and guides, the number of written exercises and assignments and coverage of portions with regards to teaching, etc. The reports were not comprehensive, meaningful and valid but made too many general suggestions. It was not possible to distinguish whether the responsibility for improvement was assigned to the teacher or headmaster. The study of the expectations of inspecting officers, headmasters and teachers of secondary schools regarding the prevailing inspection practice was revealing. (iv) Of the inspecting officers 80 per cent felt the objectives of inspection were fully realized whereas only 50 per cent teachers thought 66 per cent objectives were achieved. (v) Those who supervised were more satisfied with the realization of the objectives of inspection than those who were supervised. (vi) Teachers and inspecting officers differed in their perception regarding the achievement of leadership, improvement of instruction, appraisal of school programmes and objectives of inspection. (vii) Teachers and headmasters differed in their perception of follow-up of inspection. (viii) Inspecting officers, headmasters and teachers agreed that audio-visual aids and the school-community relationship were the two aspects that did not receive due consideration in inspection. (ix) Library service and supervision of the headmaster were the aspects considered to be not properly inspected by 50 per cent of the teachers. (x) Inspecting officers were conscious that the procedures adopted for the supervision of audio-visual aids and school-community relationship were inadequate.

- 1366.** RAJEEVALOCHANA, A., *A Study of Administrator Behaviour in Secondary Schools of Tamil Nadu*, Ph.D. Edu., MSU, 1981

The major objectives of the study were: (i) to measure the administrative behaviour of the principals or headmasters/headmistresses of the secondary schools in Tamil Nadu, (ii) to measure and find out the relationship among administrative behaviour, organizational climate and teachers' morale, (iii) to measure and establish re-

lationship between the administrative behaviour and the traditional or progressive character of schools, (iv) to measure teachers' morale and find out its relationship with the traditional or progressive character of the school, and (v) to measure the perceptions of teachers about their principals on the ABDS and find out its relationship with the principals' perception of themselves on the ABDS.

A random sample of 150 schools was drawn from among the secondary and higher secondary schools in Tamil Nadu. Data were collected using the Administrator Behaviour Description Scale (ABDS), Organizational Climate Description Questionnaire (OCDQ), Teacher Morale Inventory, Dogmatism Scale, the Traditional Progressive School Scale, etc. These tools were administered to the headmasters and the teachers of the selected schools. The data were analysed by percentages, t-test, coefficients of correlation, Chi-square test and analysis of variance.

The major findings of the study were: (i) There was no significant relationship between the administrative behaviour principals and organizational climate of the schools. (ii) The organizational climate tended to be more closed than open. (iii) There was significant relationship between the climate of the schools and the morale of the teachers. (iv) There was close relationship between the HH pattern of the administrative behaviour of the school principals and their supervision work resulting in high achievement of teaching-learning. (v) Progressive schools showed significant upward trend in mean achievement than the traditional schools. (vi) The administrative behaviour of the school principals influenced the traditional or progressive character of the schools. (vii) There was negative relationship between the dogmatism of the school principals and the teachers' morale. (viii) There was no significant difference between the perceptions of the teachers about the administrative behaviour of their principals and the perceptions of the principals about their own administrative behaviour.

- *1367.** RAM, N.P., *Physical Education, Health and Recreation of All India Inter-University Weight-lifters*, Ph.D. Edu., And. U., 1982

The objectives of the study were stated in terms of the following aspects: general aspects, objectives common to physical education, health and recreation exclusively. The sample for performance consisted of 125 participants from the following eight weight classes: fly, bantam

feather, light, middle, light heavy, middle heavy and heavy. The questionnaire was responded to by only sixty participants and seventy-eight substitutes.

The findings of the study were: (i) With respect to body weight, the heavy class had the maximum deviation of 5.6888, the minimum deviation being for the bantam class, 0.8739, and the middle heavy 0.9844. (ii) The means of both snatch and jerk steadily increased from fly, 63.11 and 81.944, respectively, to middle class 79.40 and 107.857, respectively, but decreased in the light heavy class to 71.182 and 100.682; again increased in the middle heavy class 82.57 and 109.5 and finally got reduced in the heavy class 78.214 and 105.357. In other words, the middle heavy class means were the maximum both for snatch and jerk. (iii) The mean snatch quotient was the maximum for the fly class, 124.858. Similarly, the mean jerk quotient was also the maximum for the fly class, 161.323. (iv) The mean snatch quotient was the minimum for the heavy class, 81.83. The mean jerk quotient also was the minimum for the heavy class 110.558. (v) The body weight had shown negative correlation both with snatch and jerk alike for four classes, namely, fly -0.187 and -0.2438, middle heavy -0.7115 and -0.315 and heavy -0.8214 and -0.9642, respectively. (vi) For all the eight weight classes the correlation for snatch and snatch quotients was positive and significant at 0.01 level. (vii) For all the eight weight classes the correlation for jerk and jerk quotient was positive and significant at 0.01 level. (viii) For all the eight weight classes the correlation for snatch quotient and jerk quotient was positive and significant at 0.01 level. (ix) The lift index for the light heavy class was the minimum, 128.67, and for the heavy it was the maximum, 134.42. (x) The efficiency index for snatch was the minimum, 35.35, in the fly class, and the maximum, 125.64, for the middle class. (xi) The efficiency index for jerk was the minimum, 48.46, in the fly class, and the maximum, 150.93, for the middle heavy class. (xii) All the t-values were significant at 0.01 level, so the null hypothesis was rejected and it was concluded that significant difference existed between the performance in the snatch and jerk for all the weight classes. (xiii) The quotients of the fly class were the maximum for I and II position snatch quotient (153.48 and 169.9) and jerk quotients (211.61 and 104.17) and III position snatch quotient (149.03). (xiv) In general, the values got reduced from the fly class towards the heavy class both for snatch quotient and jerk quotient. (xv) The heavy weight lifter had to be trained to a maximum extent to increase his snatch from 100 to 141.73. Similarly, the middle heavy weight lifter had to be trained to increase his snatch from 90 to 129.99. (xvi) The heavy weight lifter

had to be trained to a maximum extent to increase his snatch from 92.5 to 155.29, i.e. 62.79 points and the middle heavy weight lifter from 90 to 140.25, i.e. 85 points. (xvii) The middle heavy weight lifter had to be trained to a maximum extent to increase his jerk from 122.5 to 174.68, that is, 52 points, and the heavy weight lifter from 140 to 190.44 (that is, 50 points).

***1368.** RAMAKUMAR, U., *A Survey of Pre-primary Institutions in Bangalore City*, Institute of Social and Economic Change, Bangalore, 1979

The main objectives of the study were: (i) to survey the existing conditions of pre-primary schools in Bangalore city, (ii) to interview some of the teachers regarding the problems faced by them in the institutions in which they were working, (iii) to collect opinions from the parents sending their children to pre-primary schools, regarding these institutions, and (iv) to suggest ways and means of improving pre-primary schools.

Initially, a pilot study was conducted on ten schools, which was subsequently extended to ninety-two pre-primary institutions covering five government, ten corporation, forty-nine aided, twenty-four unaided, and four women welfare centres. The tools of survey were questionnaires and interviews, covering the heads of the institutions, teachers, and parents sending their children to these institutions.

The major findings of the study were: (i) The number of privately managed schools were more, and in recent times there had been an increase in the number; most of the aided and unaided institutions were run by religious organizations or societies. (ii) Most of the institutions prescribed their own criteria for admission including the age of three years as the minimum, and most of the children were from middle class families. (iii) Mostly female teachers were employed and they were trained either in nursery education or kindergarten methods and had a minimum qualification of SSLC. (iv) Sixty per cent of the aided and 54 per cent of the unaided schools attached to women welfare centres were located in healthy surroundings. (v) Physical facilities and amenities like water and electricity were limited. The schools run by the government, the Corporation and the Department of Social Welfare had the provision of midday meals, even though it was found that in a majority of the schools the parents would come and collect the bread and milk supplied to children. (vi) There were no separate rooms for taking lunch, and the children were asked to take it in the school corridors and classrooms. (vii)

Library facilities were almost nil. (viii) The duration of the pre-primary course was three years, the working days ranging between 201 and 220 in most of the schools, though some worked a little more and the schools run by the Department of Social Welfare worked throughout the year. (ix) Nearly 50 per cent of the institutions were run on shift system and had two sessions though the corporation and the government schools had one session only. (x) Most of the institutions maintained the programme of work, lesson plans and diary for day-to-day work and taught 3R's to children. (xi) Most of the schools emphasized learning by mechanical skill and rote memory rather than logical and scientific learning methods. Strangely enough, they prescribed textbooks to children and taught English and Kannada alphabets in addition to number concepts and nature study, including science concepts. (xii) They followed the practice of assessment by giving marks, through tests and examinations, and also followed the practice of sending report cards to the parents. (xiii) Parent-teacher meetings were held at the end of the year and they seemed to be not very effective. (xiv) Financial benefits to the teachers were limited; very few schools were having the system of provident fund, insurance and pension. The teachers in the unaided schools were feeling insecure not only about their jobs but also about the monetary benefits. (xv) Leave facilities available to the teachers were limited in the case of the unaided schools.

1369. RAMANUJAM, M.S. et al., *Stock and Supply of Educated Manpower in Jammu and Kashmir*, IAMR, 1979

The objectives of the study were: (i) to estimate the stock of educated manpower in the state at different educational levels relating to early 1971 and the supply during the fifth and sixth plan periods, (ii) to present the stock of manpower at different educational levels as at the end of 1978 and 1983, and (iii) to present estimates of the adjusted stock and supply for the periods mentioned above.

The study adopted a combination of both direct and indirect methods for estimating the stock of persons at different periods of time. Data available from one per cent data of the year 1971 Census pertaining to the State were used as the benchmark data for the year ending 1970. Supply of persons from the 1971 and onwards was based on the institutional outturn for the given level of education. For the years for which the actual outturn data were not available, the outturn was estimated on

the basis of the projected intake of the given level of education and the appropriate pass rate. The data pertaining to the educational levels such as craftsman training certificate, industrial training institute certificate, teacher training (certificate), diploma in engineering and all other technical and non-technical diplomas and certificates were available from two broad categories, viz., (i) non-technical diploma/certificate not equal to degree and (ii) technical diploma/certificate not equal to degree.

The study revealed: (i) In the year 1970, the total stock of educated manpower in the State was of the order of 1,73,100 of whom, 1,09,400 persons, constituting 63.2 per cent of the stock, comprised matric/higher secondary passed persons. (ii) Estimates of supply from 1971 onwards indicated addition to the base year stock of educated persons of the order of 48,209 by 1973, 1,57,152 by 1978 and 3,21,938 by 1983. Thus, the stock of educated persons in the State increased from 1,73,100 in 1970 to 2,19,413 in 1973, 3,20,050 in 1978 and 4,77,321 in 1983. (iii) The composition of manpower for most of the educational levels remained more or less the same during the periods except in the case of matric/higher secondary passed persons. In the case of matric/higher secondary passed persons a steady decline in the proportion to the total stock was observed over the years. (iv) Labour force participation rate estimated for different levels of education fluctuated significantly, in the case of levels like teacher training (certificate), degree in education and degree in agriculture/veterinary, the participation rate was cent per cent while in the case of craftsman training and ITI training it was as low as 58.3 per cent.

1370. RAMANUJAM, M.S., RAGHAVAN, K., BOLAR, M., NAIN, J.S., SRIVASTAVA, M.B. and BHATT, P.R., *Analysis of Student Wastage in Educational Institutions in Jammu and Kashmir*, IAMR, 1979

The study was undertaken (i) to provide an estimate of student wastage due to dropout at different levels of education in Jammu and Kashmir, (ii) to provide an assessment of stagnation at different levels of education in the State, (iii) to identify the structural location of wastage for different levels of education, (iv) to identify the reasons for student wastage at different levels, and (v) to identify the factors affecting students' successful completion of the given level of education.

The sample for the study consisted of forty-three middle schools, fifty-two high/higher secondary schools,

nine arts/science colleges including the Kashmir University, one teachers' training school, one teachers' training college, seven ITI/craftsman training institutes, one engineering polytechnic, one engineering degree college, one agricultural college and one medical college. In each of these sampled institutions a schedule designed for the purpose was canvassed. Two cohort years were chosen, one belonging to 1964-65 and another later than 1964-65. The latter cohort was chosen keeping in mind the duration of the course and the additional time normally required by a student to complete the course. With the help of the data thus collected, estimate of wastage for each of the selected type of institutions at the district level was first made. This was further aggregated at the State level.

The findings of the study were: (i) The overall dropout rate estimated for middle level school education in the State was of the order of 22.2 per cent with wide variations among the districts. At the high school level and higher secondary level, the dropout rate was 37.9 per cent and 53.0 per cent, respectively. At the undergraduate level, both in arts and science, the wastage was very high. In respect of postgraduate education in the State, the dropout rate was much lower than that at the undergraduate level. In the case of teachers' training course, there was no dropout in respect of certificate level education whereas in the case of degree level it was 27.4 per cent. In the rest of the courses the rate of dropout was low. (ii) In the case of middle school education, the maximum dropout occurred in Class VI, while in the case of high and higher secondary school levels, it occurred in the last year of the respective courses. In respect of the undergraduate courses in arts and science, a maximum number of students had withdrawn in the beginning of the course. This was also true of postgraduate level education in arts and science. In respect of the degree course in agriculture, students dropped out during the second year and the third year. However, the number of such withdrawals was too small. (iii) The stagnation rate at the middle level education in the State was not significant. All the students who passed out from the undergraduate courses in arts and science, and the postgraduate courses in arts and science, teachers training (certificate), industrial training institute and agricultural college had completed the course in the prescribed normal time. (iv) In the case of middle school level education, factors like location and management had significant negative impact on the performance of a student. The impact of districts, father's income and sex on the passing of students was positive. On the other hand, the impact of father's occupation on the student's per-

formance was negative and insignificant. In the case of high/higher secondary education the State, the sex of a student had a significant impact on the probability of passing in favour of girls. The government-managed high/higher secondary schools had lower probability of passing. In the case of undergraduate courses in arts and science, the probability of passing was higher for girls than for boys. In the case of postgraduate courses in arts, no variable had any significant impact on passing, while in the case of science the entry-level qualification had a significant impact on passing. The occupation of father as an explanatory variable did not seem to have any significant impact on passing either the degree-level course or the diploma-level course in engineering.

1371. RAMASESHAN, B., and SHENOY, M., *Study of Improvement of Measurement in the University Administration of Poona University*, Administrative Staff College of India, Hyderabad, 1979 (Poona University-financed)

The aims of the study were: (i) to examine the organization of the Poona University administration and evolve a systematic and harmonious arrangement of work to enable the university administration to meet its desired objectives, (ii) to examine the existing systems and procedures for important transactions in the university administration from the point of view of work simplification and smooth and timely disposal of work, and (iii) to provide guidelines for academic self-evaluation.

Discussions were held with various officers and supervisory staff and details regarding their duties and responsibilities were compiled and analysed. Discussions were also held with the heads of the teaching departments and the principals of the affiliated colleges to identify areas where the university administration had interface with these institutions, the staff, the public and students and outline the procedure by which the administration could provide effective service to these agencies. With regard to academic evaluation, relevant information was obtained from the teachers, principals of colleges, and students with the help of structured questionnaires, followed by detailed discussions.

Following were the recommendations made to enable the university administration function effectively in fulfilling its desired objectives: (i) A section for performing the important function of public relations and information should be created in the university administration. (ii) A legal branch headed by a law officer of the rank of

Assistant Registrar reporting directly to the Registrar be created to attend to (a) court cases arising out of disputes between the administration on the one hand, and the employees, students and society, on the other, (b) setting draft statutes, ordinances, rules and regulations and the amendments thereof, and (c) offering legal opinion, wherever necessary. (iii) An organization and methods unit should be created with a view to undertaking (a) periodic analysis of the prevailing systems and procedures and suggest modifications as a means of developing and applying easier and more effective methods, (b) systematic forms analysis and bringing improvements in the design and handling of forms, and (c) objective assessment of manpower requirements and development of rational work norms through work measurement. (iv) A cell headed by an officer of the rank of Deputy Registrar or above, reporting directly to the Vice-Chancellor, should be created as early as possible to deal with the activities pertaining to examination reforms. (v) The Vice-Chancellor's office should be strengthened by providing an Executive Assistant to the Vice-Chancellor. The post of Executive Assistant should, as far as possible, be not below the rank of a Deputy Registrar. (vi) The work of registration of external students, viz., receiving applications for registration, determining the eligibility and intimating the concerned students of their registration to the particular courses/subjects and all other correspondence with these students currently with the Examination Branch, should be attached to the Academic Branch. (vii) The entire preparatory work done up to the appointment of all university teachers currently being carried out by the Assistant Registrar (Academic) should be integrated with the Administration Branch. (viii) The entire work of granting affiliations to colleges, in extension of affiliations, forming inspection committees, etc., which is currently with the Development Branch should be integrated with the Academic Branch.

*1372. RAO, A. and CHOUDHARY, G., *The Balwadi Programme in Pondicherry*, NIPCCD, New Delhi, 1979

The objectives of the study were: (i) to describe the pattern of administration and organization of the scheme of Balwadi, and (ii) to assess the nature and extent of services provided.

Data were collected by an indepth study of fourteen of the 191 balwadis run by the Department of Social Welfare of the area and by ninety-three interviews of mothers of beneficiaries, functionaries (balsevikas and

helpers) and supervisors as well as the Director and Assistant Director of Social Welfare, Union Territory of Pondicherry. The interview schedule for mothers related to socio-economic background, nature of services provided and their assessment and involvement with the scheme while that for functionaries, besides socio-economic background, included training and professional experience, service conditions, job responsibilities and job satisfaction. On the basis of observations and interviews with the balsevikas, a proforma for beneficiaries' physical facilities and equipment, daily programme of activities, health, nutrition, educational and other services, community involvement and supervision was filled in; unstructured interviews were used for the supervisors and authorities and office records for administrative and organizational aspects.

The study revealed: (i) The timings were very innovative, the full-day balwadis served the dual purpose of providing nutrition and education services to pre-school children in the age group 3-5 and also provided day-care facilities for the children. (ii) The balwadi programme fostered children's development; they were looked after, provided with food supplement and also provided opportunity to participate in educational and play activities. (iii) The beneficiaries were nearly 25 per cent of total Pondicherry population in the age group 3-5, a much greater coverage than at the national level. (iv) Children from lower socio-economic groups were adequately represented; children from the Scheduled Castes and the Scheduled Tribes accounted for 17.3 per cent of the beneficiaries while their proportion in the total population of the territory was only 15.5 per cent. (v) The location of the centres was urban-oriented, the health services needed improvement and the balsevikas spent little time on regular community work. (vi) Frequent supervision and regular and timely supply of stocks were facilitated by geographical compactness. (vii) The job conditions were favourable at all levels, they were full-time government employees eligible for attendant benefits and facilities; appreciation and respect from the local community, particularly mothers, contributed to their reinforcement. (viii) The average cost per child per month was Rs.32 when no food aid was provided and Rs.24 when the CARE food supplements were available.

1373. RAO, G.M., *A Study in relation to Universalization of Elementary Education in Andhra Pradesh*, Directorate of School Education, Hyderabad, 1980 (NIEPA-financed)

The objectives of the study were: (i) to examine the adequacy of the present administrative system for elementary education in relation to the programme of universalization of elementary education in Andhra Pradesh, (ii) to indicate ways and means of strengthening and streamlining the administration of elementary education in Andhra Pradesh for the successful implementation of the programme of universalization of elementary education, (iii) to suggest ways and means of coordinating the efforts of the Education Department with those of other developmental agencies in Andhra Pradesh, and (iv) to suggest a framework for decentralization of administration of elementary education in Andhra Pradesh.

Two blocks in each of Anantapur and Adilabad districts were selected such that one block had the highest enrolment and the other the lowest enrolment in Classes I to VII as on 31 March 1978. Three villages from each block were selected for intensive study on the basis of having the highest, average and lowest enrolment in the block in Classes I to VII as on 31 March 1978. All the key functionaries at the district, block and village levels, that is, District Education Officer, Parishad Educational Officer, Municipal Commissioner, Block Development Officer, Deputy Inspector of Schools, Extension Officer, Junior Deputy Inspector of Schools, headmasters and incharge of the schools were also included in the sample of the study. On the basis of the schedules provided by NIEPA, separate schedules were developed for various functionaries at the village, block and district levels. These schedules were used to collect necessary information about the enrolled, non-enrolled and non-attending children in the age group 6 to 13, the functioning of school improvement committees; physical facilities of schools; appointment of teachers; various aspects of inspection and supervision of schools; administrative arrangements for the opening of new schools; creation of posts, release of grants, etc. Besides getting information through the schedules, the above mentioned functionaries were also interviewed in order to know their opinions and suggestions on the various tasks performed by them for improving the existing administrative structure and system of elementary education in relation to the programme of universalization.

The study yielded the following findings: (i) The census of children in the age group 6 to 13 of the villages was regularly conducted by the headmasters of the schools before the commencement of every academic year. (ii) The enrolment of children in the age group 6 to 11 in the selected schools lacked uniformity and varied from village to village and the impact of the enrolment drives

and other efforts of the teachers and the inspecting officers was only marginal. (iii) Regular attendance of the children in schools mainly depended upon their social and economic background. (iv) There were no specific job charts for the headmasters and the teachers working in the elementary schools. (v) Many of the sample schools had no school improvement committee. (vi) Only six out of the twelve sample schools had proper buildings. (vii) There were no proper furniture and equipment in any of the twelve sample primary schools and the position in the case of single-teacher schools was still worse. (viii) There were no non-formal education centres in any of the twelve sample villages. (ix) The set-up for the administration of elementary education consisted of an Additional Director, one Deputy Director and an Assistant Director. (x) The Deputy Director in charge of planning and statistics also looked after elementary education. (xi) The educational planning for elementary education at the directorate level frequently suffered from lack of comprehensive information about the district plans. (xii) The officers at the directorate dealing with elementary education hardly found time to visit districts and supervise the implementation of schemes related to universalization. (xiii) The efforts of the State Council of Educational Research and Training for the qualitative improvement of elementary education were not sufficiently oriented to realistic classroom situations. (xiv) The directorate provided incentives like book grants, attendance scholarships, textbooks, slates, pencils, etc., free of cost to the Scheduled Caste children and to girls, in general, studying in Classes I to VII in the State. (xv) There was no special machinery for speedy sanction of schemes related to universalization of elementary education.

1374. RAO, G.R.S. and others, *A Comprehensive Study of Educational Administration and Management of School System in the State of Karnataka*, Administrative Staff College of India, Hyderabad, 1981 (Government of Karnataka-financed)

The study attempted (i) to identify the critical areas in the administration of the overall school educational system, and (ii) to find alternate solutions to improve the management especially with regard to organization, decision-making processes, budgetary allocation and planning of resources and control, etc., to achieve effectiveness in respect of utilization of manpower, financial and physical resources, and in decision-making and control

aspects.

The study team visited Tumkur, Shimoga, Tirthahalli, Mangalore and Bangalore and discussed with various officials of the education department and institutions on the relevant issues. Apart from the opinions and experiences of various officials at different levels, relevant statistical data were collected from various places. Interviews were conducted with the aid of a checklist covering both academic and administrative aspects.

The study made the following findings and recommendations: (i) The Office of the Commissioner for Public Instruction (CPI) was the unit responsible for policy formulation, planning, implementation, and monitoring and control of educational administration in Karnataka. (ii) The CPI might be redesignated as Commissioner and Director of Public Instruction (CDPI). The CDPI should integrate various streams of education, under one umbrella. All matters of governing should be channeled through the CDPI. The budgetary sanctions should be secured well before the commencement of the academic year. (iii) Planning function should be strengthened by the creation of a Central Planning Cell (CPC) at the headquarters, under a Joint Director. (iv) Field organization should be strengthened through proper definition of roles, delegation of powers and decentralization, within the existing framework of the organizational structure. (v) Position of Education Officer might be created at the district level to lend administrative support to the CDPI. (vi) Planning and budgeting processes should be based on systems analysis. A system of continuous monitoring of programmes should be based on the processes. (vii) The distortions and imbalances in the decision-making process should be corrected by providing explicitly stated rules and delegated powers to different levels. Decisions taken within the framework of such explicit norms should be normally supported. (viii) 'Case History Sheets' might be inducted to keep track of files and decision-making processes. (ix) Effectiveness of the inspection system should be qualitatively improved and coupled with guidance and counselling to teachers. (x) Recruitment of teaching and non-teaching staff should be based on effective manpower planning and norms. The process of recruitment of teachers should be professionalized and depoliticized. (xi) Training should be given weightage and approached systematically. Training of non-teaching staff was as important as the teaching staff.

1375. RAO, P.M., *A Critical Study of the Implementation of Some Innovations in Higher Education in*

Andhra Pradesh in India, Ph.D. Edu., MSU, 1980

The main objective of the study was to know the factors affecting success or failure in the implementation of innovations in higher educational institutions. It was realized through an indepth study of the adopter system in terms of its date of establishment, strength of teachers and students, attitude of the people towards innovations, innovations implemented, the level of implementation, the resources needed for the implementation of innovations and the impact of innovations. The role of resource system was also studied to the extent of its floating innovations only.

Considering the purpose of the investigation case study was selected as the method to deal with the problem. Five universities, viz., Andhra University, Nagarjuna University, Osmania University, Kakatiya University and Sri Venkateswara University, and one autonomous postgraduate centre in Andhra Pradesh were selected as sample. Three innovations from each institution were selected for the purpose of this study. In all, eighteen cases were studied. Data were obtained with the help of a case study proforma, a questionnaire, technique of interview, various records and participant observation. The data were analysed qualitatively.

The major findings of the study were: (i) Internal assessment in Andhra University and Sri Venkateswara University, the semester system in Andhra University and partially M. Phil. course in Osmania University failed mainly due to lack of proper orientation and dissemination of knowledge about the innovation. (ii) All the universities, which had discontinued the innovation were generally suffering from lack of proper understanding about the objectives of the innovation. (iii) Where the innovations were being implemented and continuing on temporary basis as in the case of Nagarjuna University, Kakatiya University and autonomous postgraduate centre, they were suffering generally from lack of resources. (iv) The unsuccessful functioning of the innovation of correspondence course in Osmania University was due to lack of infrastructure and adequate furniture. (v) Internal assessment was practised by all the six universities in the State, but Andhra University and Sri Venkateswara University had already discontinued the innovation. (vi) The factors commonly working for the successful functioning of the innovations were awareness of the people, communication facilities, decision-making procedure and general administration of the universities. (vii) In the case of the semester system, M. Phil. course and correspondence course, the factors working for the successful functioning of the in-

novations were communication facilities, awareness of the people, library facilities and experienced teachers.

- 1376.** RAO, S.R., *A Study of the Effects of Pre-school Education on Primary and Secondary School Education*, Dept. of Edu., SVU, 1980

The main objective of the investigation was to study the effects of pre-school education on primary and secondary education. More specifically, the study was designed to find out the differences in academic achievement and acquisition of certain personal and social characteristics of children who attended a nursery school and those who did not.

A sample of 480 children of both sexes studying in Classes I, III and VIII constituted the subjects for the study. The marks scored by the children in the common annual examination in English, Telugu and arithmetic were obtained. The tools used included Telugu Vocabulary Scale and Telugu Handwriting Scale. In addition, a rating scale was developed to assess the attainments of children with regard to such aspects as ability to mix with others, cooperation, leadership qualities, picture-drawing ability, ability to narrate stories, health habits, ability to work independently and participation in games and sports.

The major findings of the investigation were: (i) The achievement of the children with pre-school education was higher than that of the children without such education in Class I Telugu and mathematics and Class VIII English and Telugu. (ii) The scores of the children with pre-school education in Classes III and VIII for Telugu Vocabulary Scale and Class VIII for Telugu Handwriting Scale did not differ from those of the children who did not receive such education. However, the children of the pre-school group in Class III showed slight superiority in Telugu handwriting over the children who did not receive any pre-school education. But this initial superiority seemed to get nullified in subsequent years and when children reached a higher standard (Class VIII), their performance did not differ significantly from that of the children who received no pre-school education. (iii) Regarding personal and social characteristics, the children who had the benefit of pre-school education were superior to those children who did not receive any such education in respect of picture-drawing ability, punctuality and participation in games and sports.

- 1377.** RAO, Y.R., *A Study of the Relationship of a Few*

Selected Variables to the Academic Achievement Indices of Secondary Schools, Ph.D. Edu., Madras U., 1976

The investigation was designed to study the relationship of a few selected variables relating to school, teachers and pupils to the academic performance of secondary schools, to identify some correlates of academic performance of secondary schools and to find out the best predictors of academic performance.

The sample comprised forty-five secondary schools of the city of Madras. From each school one class of Grade XI was randomly selected. The study involved 1,752 pupils and 482 teachers. The tools used were an achievement test specially constructed and standardized and a school information schedule. Twenty-six variables were chosen for study, viz., school size, class size, total class strength, teacher-pupil ratio, teacher turnover, mean job satisfaction, mean instructional facility, mean total teaching experience, experience in the present school, building facility, physical facility, educational facility, mean study habits, mean intelligence, mean socio-economic status, disengagement, hindrance, esprit, intimacy, aloofness, production emphasis, thrust, consideration, pupil, teacher and organization-orientation. Data on these variables were subjected to factor analysis.

The major findings of the investigation were: (i) The teaching condition — a factor isolated through factor analysis had a high predictive value. It was the result of the coalescence of the teacher, the pupil and the school. It appeared to be a unique environmental factor influencing the performance of the school. This implied that for improving the school quality, the administration should adopt a combined approach to work with these three variables. (ii) Open climate was an important factor for improving school quality. This type of climate could be obtained if all teachers worked together with minimum hindrance to the work of a teacher, with the head not keeping aloof and having no tendency for production emphasis to a great extent. (iii) Pupils from different socio-economic status levels benefited differentially from the available facilities of the school.

- 1378.** ROSHIAH, R.F., *A Critical Study of the Perceptions of College Communities about the Desirability and Feasibility of Introducing Semester System in Their Colleges in the City of Madras*, Ph.D. Edu., MSU, 1980

The major objectives of the study were: (i) to find out

the components of the semester system perceived by the teachers of affiliated colleges, autonomous institutions and university departments as feasible and desirable, (ii) to determine the influence of sex, age, teaching experience and qualifications on teachers' perceptions of the desirability and feasibility of introducing the semester system, (iii) to find out differences in the perceptions of college teachers and college administrators of the semester system, (iv) to find out whether teachers in the various faculties like arts, science, commerce, medicine and education differed in their perceptions of the semester system, and (v) to find out whether factors like institutional climate, leadership behaviour, teachers' morale, and teachers' dogmatism influenced teachers' perceptions of the semester system.

Five hundred teachers selected at random from the affiliated colleges, autonomous institutions and university departments of the Madras University formed the sample. Tools used in the study were a Semester System Perception Description Questionnaire, a questionnaire on institutional climate, Teacher Morale Inventory (Baroda version), Leadership Behaviour Description Questionnaire and an adapted version of Milton Rokeach's Dogmatism Scale. Product moment correlation, t-test and factor analysis were the statistical techniques used for the analysis of data.

The major findings of the study were: (i) The teachers of autonomous institutions perceived the semester system more favourably than the teachers of affiliated colleges and university departments. (ii) The teachers of university departments perceived the semester system more favourably than the teachers of affiliated colleges. (iii) The college teachers perceived the semester system as a desirable proposition rather than a feasible one for adoption in their colleges. (iv) The faculties of engineering, medicine, technology and veterinary science perceived the adoption of semester system more favourably than the faculties of education, law, science, arts and commerce. (v) Top educational administrators perceived the semester system both desirable and feasible for adoption by colleges and their perceptions were more favourable than those of other categories of educational administrators and teachers. The heads of departments came next in this respect and they, too, considered it to be equally desirable and feasible. The principals of colleges and professors perceived the semester system as desirable but not feasible. The lecturers, demonstrators and tutors considered the semester system as neither desirable nor feasible. (vi) Age, sex, academic qualifications and teaching experience influenced teachers' perceptions and teaching experience influ-

enced teachers' perceptions of the semester system. The teachers in the age range 31 to 50 years were more favourable to the semester system than the younger and the older teachers. The professional degree-holders were more favourable to the semester system. The male teachers were more favourably inclined to the feasibility of the semester system than the female teachers. The teachers with 11 to 20 years of teaching experience showed a more favourable inclination to the semester system than other teachers with more or less teaching experience. (vii) The institutional climate showed no relationship with the teachers' perception of the semester system. (viii) Leadership behaviour and teachers' dogmatism were not related to their perceptions of the semester system. (ix) Factor analysis helped to identify eight factors in the perceptions of the college teaching communities.

1379. RASTOGI, R.P., *School Climate, Psychological Health, and Classroom Functioning of Students in relation to Their Satisfaction-Dissatisfaction with School*, Ph.D.Edu., Kan. U., 1981

The aims of the investigation were: (i) to study the students' satisfaction-dissatisfaction with school in different organizational climates, (ii) to study the school climate, psychological health of students and their classroom functioning in relation to their satisfaction-dissatisfaction with school, and (iii) to compare highly satisfied and highly dissatisfied students on psychological health variables and their classroom functioning, both urban and rural separately and as a whole.

The sample consisted of 480 teachers teaching Classes IX to XII, and 9000 students reading in Classes X and XI with science curriculum from nineteen (six rural and thirteen urban) intermediate colleges in Allahabad district. Cluster and random sampling techniques were used to select the sample. Only those who had a stay of at least two years were included in the sample. For collecting data from students, the tools administered were Standard Progressive Matrices, Group Test of Mental Ability (Joshi), Test of Self-concept (Varma, Sherry and Goswami), Sinha Anxiety Scale, Edwards Personal Preference Schedule, (EPPS), L.A. Coding Test (Ansari), Socio-Economic Status Index (Verma and Saxena), Santosh and Asantosh Mapni (constructed by the investigator). For measuring classroom functioning the aggregate of total marks of students in the Board's high school examination results was considered. School Organizational Climate Descriptive Questionnaire (Sharma) was

used to measure the school climate. For analysing the data, product moment correlation, second order partial correlation analysis of variance and critical ratio test were used.

The findings of the investigation were: (i) The school climate differentiated satisfaction-dissatisfaction of the students with their school. The students were more satisfied in open range climate schools (open and autonomous) and comparatively less satisfied in closed range climate schools (paternal and closed). (ii) The organizational climate of the school did not seem to be related to satisfaction-dissatisfaction of the students. (iii) Self-concept and psychological needs had significant relationship with the students' satisfaction-dissatisfaction with the school. (iv) Curvilinear relationship existed between psychological health, classroom functioning, socio-economic status and intelligence of the students and their satisfaction-dissatisfaction with the school. (v) Self-concept and EPPS needs were the chief contributors to the variance in satisfaction-dissatisfaction of the students with their school. (vi) Intelligence and socio-economic status did not intervene in the relationship of different variables included in the study with satisfaction-dissatisfaction of the students with their school, except for anxiety. (vii) Zero order correlations were almost similar to the independent relationship of different variables with satisfaction-dissatisfaction except for n_{suc} , n_{het} , n_{aff} and n_{agg} . (viii) Both extrinsic and intrinsic factors linked with satisfaction-dissatisfaction of the students. (ix) Factorial pattern for the highly satisfied and highly dissatisfied students was different, high dissatisfaction was associated with 'unconducive school conditions only'. (x) Psychological health profiles were significantly different for the highly satisfied and the highly dissatisfied students, specifically their need profiles and self-concept. (xi) Need profiles for the urban highly satisfied and highly dissatisfied students were significantly different on many of the psychological needs while those for the rural ones were almost homogeneous (except for n_{exch} and n_{nur}). (xii) The urban students were less satisfied than the rural students.

- 1380.** SAHU, K.C., *An Investigation into the Adequacy of Panchayatraj Administration in the Tribal Development Blocks of Orissa*, Ph.D. Edu., Sam. U., 1980

The purpose of the study was to inquire into the adequacy of panchayatraj administration in the Tribal

Development Blocks of Orissa. The rationale of the problem was that the adequacy of panchayatraj administration depended on the efficiency of the extension officers. The efficiency of the extension officers was influenced by their adjustment and attitude. The objective of the study was to determine the inter-relationship among the three variables, attitude, adjustment, and efficiency, of the extension officers, treating efficiency as the criterion variable and the other two as predictor variables.

The study was confined to the Tribal Development Blocks of Orissa. A sample of 262 extension officers was drawn for the purpose. The tools used were attitude scales, score cards and an adjustment inventory. The attitude scale developed by the investigator comprised a battery of Thurstone-type scales, each measuring a particular continuum and the total scale measuring overall attitude of the extension officers. The attitudinal objects chosen for the scale were the profession, the panchayatraj administration, the tribals and colleagues. The attitude scales were validated against the R.T. Scale of Melvin, the validity coefficients ranged from 0.31 to 0.53. The reliability of the scales was estimated by the split-half method, the coefficients of correlation ranged from 0.75 to 0.90. The score card used for evaluating the extension officers was also developed by the summated rating technique. The instrument was validated against the scores given to the subjects for their efficiency by the Block Development Officers.

Some of the major findings of the study were: (i) Attitude and adjustment were positively related. (ii) Attitude and efficiency were also positively related. (iii) The relationship between adjustment and efficiency was positive and significant. (iv) The mean efficiency score was 63.6, which indicated considerable efficiency of the subjects. (v) The mean attitude score of the subjects was 5.0, which indicated that the extension officers had positive to neutral attitude towards the attitudinal objects. (vi) The mean adjustment score was 50.6, which implied that the officers were satisfactorily adjusted in different areas of work.

- 1381.** SAPRA, C.L., *A Study of the Role of the Central Advisory Board of Education in relation to the Development of Primary Education in India*, Ph.D. Edu., Del. U., 1980

The specific objectives of the investigation were: (i) to study the recommendation of the Central Advisory Board of Education (CABE) relating to some of the im-

portant problems of quantitative expansion and qualitative improvement and some other allied problems of primary education, (ii) to ascertain the extent of influence of the Board in the implementation of its recommendation on the Central and State Government, (iii) to critically examine the implications of the changes in the membership composition and working procedures of the Board for the development of education, in general, and primary education, in particular, and (iv) to suggest improvement in the role effectiveness of the Board.

The study, being descriptive and interpretative in nature, was confined to the role of CAGE in relation to primary education for the period 1947-51 and four five year plans (1951-74), including interregnum (1966-69). The aspects of primary education were confined to two States, namely, Andhra Pradesh and Kerala. The tools employed were questionnaires, structured interview schedules and an observation schedule. Analysis of the responses was done by finding percentages. The responses were also analysed qualitatively.

The important findings of the investigation were: (i) The CAGE followed a policy of drift by shifting its stand frequently on the target of universalization of primary education. (ii) The CAGE made important recommendations to tackle the problems of universal provision of schools, universality of enrolment, wastage and stagnation, education of girls, education of the Scheduled Castes and Scheduled Tribes, provision of physical and other facilities, professional preparation and growth of teachers, improvement in the remuneration and service conditions of teachers, improvement of curriculum and supervision. (iii) The Board also adopted significant resolutions on certain aspects of basic education during the period 1947-66 but softened its attitude towards certain controversial aspects of basic education. For instance, it recommended the introduction of English in senior basic schools to facilitate admission of the products of basic schools into higher schools. (iv) The Board made repeated pleadings for assigning higher priority to primary education vis-a-vis other sub-sectors of education. (v) The Board's recommendation on the relationship between the state governments and local bodies in the administration of primary education did not help in satisfactorily solving the problems arising from the introduction of democratic decentralization of primary education. (vi) The size of the membership of the Board increased from fourteen in 1921 to twenty-four in 1935 and to seventy-eight in 1974. Change in the membership composition tilted the balance in favour of the Central Government, thus diluting the federal character of the Board. (vii) The mode of functioning of the Board left

much to be desired in terms of the nature of agenda, ground work done for the Board's meetings, frequency and duration of the meetings, conferencing practices and working procedures. No specific pattern for selecting problems of primary education was followed. (viii) The recommendations made by the Board were comprehensive enough covering all aspects of primary education though stress varied from one aspect to another. (ix) The role played by the Board in the development of primary education was responsive rather than promotional. (x) An economically advanced State like Kerala was in a better position to implement the recommendation of the Board unless it was unwilling to execute a particular recommendation either on financial or on ideological grounds. (xi) In spite of various inadequacies which have retarded the efficient functioning of the Board, there was need for such a body in a federal country like India.

- 1382. SARKAR, B.N.,** *A Pilot Investigation on School Drop-out Reasons*, Demography Research Unit, ISI, Calcutta, 1980

The main aim of the study was to ascertain the reasons for drop-out and prepare a list of reasons applicable to the rural population of the country. A detailed list of ninety-three questions subdivided under general reasons, economic reasons, domestic reasons, school environment and drop-outs opinion was built up and administered to forty-six male and thirty-five female drop-outs in the age group 6 to 24 years in all the sample households of four selected villages. Based upon the response of the guardians and the drop-outs the questions were broadly divided into four categories.

The findings of the study were: (i) School environment did not contribute to the drop-out of students of either sex. Domestic work accounted for at least 70 per cent of the female drop-outs. Inadequate income for living accounted for two-thirds of the female drop-outs and about 80 per cent of the male drop-outs. (ii) Guardians' lack of interest was the most dominant reason applicable to both the male and the female drop-outs among the questions under the views of drop-outs.

- 1383. SARKAR, B.N.,** *Non-enrolment of Children in Schools and Reporting Error in Data Collection*, Demography Research Unit, ISI, Calcutta, 1980

The main aim of the study was to evaluate the extent

of school non-enrolment of children by parents and response error in surveys. All the villages of Howrah, Hooghly and 24-Parganas, as per the 1961 Census, were divided into six strata by grouping together tehsils which were contiguous and had similar crop pattern and population density. Two independent sub-samples of six villages from each stratum and with equal probability were selected. All the households of each sub-sample of six villages were sub-stratified under three sub-strata. The sample included 1,857 couples with wife's age less than 50 years. The interview technique was adopted to collect educational details. All the nine error possibilities were sub-divided into three groups.

The main findings of the study were: (i) Suppression of non-enrolment reports was more from females. Lapses of reporting were more from literate wives perhaps due to higher motivation to educate children. Literate mothers were more reluctant to report non-enrolment of children. (ii) Presence of literate mothers in households was positively associated with higher enrolment of children in schools. (iii) Comparison of reports of the father and the mother might eliminate almost all the fictitious enrolment statements by the father or the mother.

***1384.** SARKAR, B.N., *Primary Education of Children in Rural Bengal*, Demography Research Unit, ISI, Calcutta, 1980

The main aims of the study were: (i) to work out the level of minimum education which should be arranged for boys and girls, (ii) to identify the various causes leading to non-enrolment of children and suggest programmes for increasing their access to education, and (iii) to specify causes of drop-out of children from school before attaining the minimum education and to plan strategies of educating parents not to withdraw children.

The level of education needed was derived from the empirical evidences from sample surveys. Non-enrolment and drop-out problems retarding the universalization of education among the village poor were examined on the basis of a sample survey conducted by the ISI during 1978 in seventy-two sample villages in the districts around Calcutta. Survey data from 1,553 sample households provided material for studying educational development among the population of rural Bengal in respect of the following social groups: upper caste Hindus, Scheduled Caste Hindus, other Hindus, and Muslims referred to as social groups 1, 2, 3 and 4, respectively. A two-staged stratified sample design was adopted with

village as the first stage and household as the second stage of sampling.

The main findings of the study were: (i) Universalization of primary education depended more on enrolment drive among the backward population represented by the Scheduled Caste Hindus and Muslims. Muslims in general had primary schools but the Scheduled Caste Hindus did not have adequate primary school facilities. Drop-out problems among females might be controlled by enforcing the Marriage Age Restraint Act, 1978. (ii) Universalization of education did not depend only on motivating parents to send children to school but also on providing more primary schools to the agricultural population and to the Scheduled Caste Hindus. The task of motivating parents to send children to school might be made easier by designing school curricula in such a way that they helped males and females in their day-to-day work. (iii) Enrolment of girls might be improved only when boys were enrolled since parents wanted higher education of bride-grooms in negotiating marriage of their daughters. (iv) The rate of enrolment improvement in recent years among the males of social groups 2, 3, and 4 had been unsatisfactory. This might have an adverse effect on the rate of enrolment improvement among the females of these social groups. Little improvement was made during the last two decades in the enrolment rate among the Scheduled Caste Hindu males. (v) Economic difficulty was responsible for non-enrolment as well as for drop-out of boys and girls. Children in forties and above might account for a section of non-enrolment or drop-out. (vi) Low marriage age of girls among social groups 2 and 4 was responsible for large-scale drop-out of girls from studies. Girls were withdrawn to avoid marriage negotiation difficulty.

***1385.** SARKAR, B.N. and DAS, C., *Management of Primary Schools in Rural Areas of Districts around Calcutta*, Demography Research Unit, ISI, Calcutta, 1980

The major objective of the study was to find out the availability of educational facilities in the primary schools and to analyse the probable factors responsible for variations of performances of the primary schools in the rural areas of the state.

All the villages of Howrah, Hooghly and 24-Parganas, as per the 1961 Census, were divided into six strata by grouping together tehsils which were contiguous and had similar crop pattern and population density. Two independent sub-samples of six villages from each stratum and with equal probability were selected. In all, seventy-

two primary schools from fifty-one sample villages in the districts around Calcutta were covered. Data were collected from the headmaster or, in his absence, from the teacher nominee of the school by the supervisory personnel.

The findings of the study were: (i) The notion that primary schools suffered due to apathy of village leaders was untenable. The method of sanctioning number of teachers to primary schools was largely responsible for the poor state of management of primary schools. (ii) Every primary school teaching up to Class IV should have at least five teachers. (iii) The number of primary schools should be increased to cut down the size of big schools and also to make room for more students. (iv) Establishment of more schools and appointment of more teachers would not only create more employment for educated persons in the villages but will also create a better atmosphere for parents to send their children to schools. (v) Twenty-four per cent of the schools had only two teachers and thirty-three per cent had three teachers to manage all the five or six classes.

- 1386. SARMA, M.K.,** *A Critical Survey of the Environmental Factors in the Education of the Secondary School Students*, Ph.D. Edu., Gau. U., 1978

The main aim of the study was to identify important environmental factors that seem to have a bearing on education and suggest ways and means to improve them.

Data were collected from about 1,000 students of four single sex schools of the town of Jorhat, Assam. Most of the students belonged to higher classes of the secondary schools. The main study was carried out with 237 students (131 boys and 106 girls) of Class IX. Two questionnaires for students, a teacher description scale and a home description scale were used. Interview, observation and case study methods were also employed. School records were studied to find out various correlates of achievement. A Moreno-type socio-metric technique was employed to measure the degree of acceptance of each student in relation to his or her peers in the classroom. Homes of about 200 students were visited and data on home description scale were collected by adopting the interview method. Besides observation of classroom teaching a large number of teachers were interviewed individually. Academic raw scores were converted into standard scores and socio-metric scores were converted to comparable forms.

The study revealed: (i) There was positive significant correlation between academic achievement and socio-economic status. (ii) Reliability co-efficients of the

achievement scores ranged from 0.50 to 0.87. (iii) Reliability co-efficients of the socio-metric scores ranged from 0.56 to 0.87. (iv) Choice process was completely stable. Choice pattern was quite reliable. (v) Academic achievement was partly responsible for popularity. (vi) As many as seventeen different reasons for liking their classmates, with varying emphasis, were identified, the pattern of emphasis varying for boys and girls. There were nineteen causes for disliking the classmates. (vii) There was a positive correlation between academic progress of students in school and their parents' education. (viii) Absence from school due to illness, poverty, social celebrations, school phobia, heavy household duties, truancy, cultural deprivation, family size, ordinal position of the child in relation to other siblings in the family, inadequacies in terms of competence, comprehension, awareness and earnestness on the part of a section of teachers and absence of adequate school facilities affected school attainments. (ix) Ordinal position of the child influenced various personality aspects. (x) The cultural tone of the family, favourable parental attitude towards education and well-being of the children played a more vital role in academic achievement than the material condition at home.

- 1387. SATYAVATHI, K.,** *Physical Growth Characteristics of Adolescents of Chittoor District*, Andhra Pradesh, Ph.D. Home Sc., SVU, 1978

The study attempted to assess the growth characteristics of school-going adolescent boys and girls in Chittoor district of Andhra Pradesh. Observations were made and recorded for each child at an yearly interval. The data on weight and height were analysed using the methods described by Tanner for the mixed longitudinal study.

A total sample of 1,003 students consisting of 581 from rural areas and 422 from urban areas constituted the subjects for the study. Two-stage stratified random sampling technique was employed. The instruments used included a portable weighing-machine, spreading caliper and metal tape.

The important findings of the study were: (i) The urban boys showed better weight means than the rural boys. (ii) The weight means for the rural and urban girls were not significantly different. (iii) The height means for the rural and urban boys were not significantly different. (iv) The rural girls were significantly taller than the urban girls after their sixteenth year of age. (v) The peak weight velocity showed gain between 3.0 and 4.0 kg. for

both boys and girls. (vi) The boys always maintained better height and weight in the cross-sectional study. (vii) The rural girls having higher standing height also showed higher means for sitting height. (viii) The boys had significantly more neck circumference than the girls. (ix) The chest depth values were not significantly different for the rural and the urban subjects. (x) Hip girth was more in the case of the girls than of the boys. (xi) The boys, in general, had better values for growth for all the upper extreme measurements than the girls. Further, the urban boys were ahead of their rural counterparts. (xii) The early maturing girls had higher values for height than the late maturing girls. However, both approached identical height around the nineteenth year of age.

1388. SATYAVATI, A., *A Study of Proneness in Adoption and Discontinuance of Innovations in Schools*, Ph.D. Edu., MSU., 1980

The objectives of the investigation were: (i) to study the process of adoption of successful innovations and the process of discontinuance of innovations, (ii) to study the process of adoption and discontinuance of innovations in relation to organizational climate, leadership behaviour and teacher's morale of the school, and (iii) to study the variations in the process of adoption of innovations in different types of schools (privately aided, Central and missionary schools).

The descriptive survey method was adopted for collecting data and finding out the facts. In all, thirty schools were selected purposively for this study from all over Gujarat. The principals, graduate and postgraduate teachers and trained and untrained teachers working in these schools provided the information. The information was sought through a questionnaire and interview schedule specially constructed for this purpose. Contributing factors for system effect were studied through the adopted versions of Organizational Climate Description Questionnaire, Leadership Behaviour Description Questionnaire and Teacher Morale Inventory. In addition, the Barriers to Change Checklist was used. The data collected were analysed using percentages and t-test.

The major findings of the investigation were: (i) There were seven stages in the process of successful adoption of innovations and discontinuance of innovations. These were: problem awareness stage, search for solution stage, knowledge about innovation stage, persuading influence stage, decision-making stage, adoption stage,

and evaluation stage. (ii) The sources of awareness were the principals, teachers, pupils and parents. (iii) Teachers received ideas, in order of preference, from within the system, NCERT, journals, colleges of education, other institutions and experts. (iv) The majority of the principals stated that they had a clear understanding about the innovation and all the principals had framed the objectives. (v) Staff members, pupils, parents, principal and officials had prepared for the adoption of innovation. (vi) A majority of the principals had consulted and discussed with the staff and students before implementing innovation. (vii) Most of the schools evaluated the innovation and on the basis of this evaluation the innovations were adopted or discontinued. (viii) The specific factors accounting for discontinuance were: dissatisfaction with its performance, divided opinion among the staff members, lack of sufficient finance, lack of support from society, want of convincing source, and extra load of work involved. (ix) Barriers to change as checked by the staff in private aided schools were: want of time, heavy syllabus, inadequate resource of magazines and journals, absence of suitable agency to train the staff for professional growth, lack of incentives in the system, parental interference, fear of additional work, lack of appreciation from the superiors, and vested interests of the staff outside the school. (x) Barriers to change as checked by the staff in the Central Schools were: want of time, heavy syllabus, fear of additional work, transfer of teachers, lack of appreciation from the authority, lack of guidance, lack of suitable members, lack of resourcefulness of the principal, negative attitude and tendencies of the pupils and the innovations imposed from above. (xi) Barriers to change as checked by the staff in the missionary schools were: absence of healthy relation among the staff and the leader, lack of integration of the innovation into the system, inadequate resource system, inadequate staff, non-availability of instructional material, the bossing attitude of the principal, lack of tradition in the system and influence of the neighbouring institutions in addition to the factors mentioned in the case of private and Central schools.

1389. SCERT, *The Impact of Non-detention Policy*, Hyderabad, 1976

The objectives of the study were: (i) to find out the impact of the existing policy of non-detention on parents, students and teachers, (ii) to study the achievement levels of students of various classes, and (iii) to find out

the effect of non-detention policy on drop-outs.

The sample consisted of 1,150 pupils, 358 teachers, 247 parents and 36 supervisors of eight districts of Andhra Pradesh, namely, Adilabad, Anantpur, Prakasam, Cuddapah, Kurnool, Nalgonda, Hyderabad and Nellore. The study used an attitude scale and developed case studies. An attitude scale consisting of more than 100 items was devised. The items were reduced to 100 after pre-pilot administration. The final scale consisted of 31 items. Case studies of the schools about the achievement level were prepared. Mean and percentages were employed to process the data.

The study yielded the following findings: (i) All the groups unanimously agreed that most of the schools were in need of more facilities for the implementation of the new evaluation policy. (ii) There was regular attendance of the students at schools. (iii) The students were apparently free from the emotional dread of the examinations. (iv) The students were not motivated to put in better effort. (v) Regular study habits of the students were impaired. (vi) The students were found to be losing interest as they did not have previous knowledge in the subjects. (vii) The non-detention policy did not promote the education of weaker sections of the society. (viii) The policy did not enhance the respect for and confidence in the teachers among the students. (ix) The standard in the schools seemed to be deteriorating. (x) The students in the class were of different levels of achievement making classroom teaching more difficult for the teachers. (xi) The teachers were finding it difficult to prepare unit tests. (xii) The teachers were not well acquainted with the techniques of the new evaluation policy. (xiii) The teaching pattern in the classroom was materially the same in spite of the orientation in the new evaluation policy. (xiv) The headmasters were not able to provide competent guidance to their teachers in the new methods of teaching. (xv) The pupils were not taking the tests and examinations seriously. (xvi) The policy was found to be not helping the students to improve self-confidence. (xvii) The pupils were not working hard at home. (xviii) There was no perceptible increase or decrease in the degree of variations in the scholastic achievement of schools in general at Class X. (xix) There was no effect of the non-detention policy on the achievement level of Classes I to V. (xx) In the case of Classes VI, VIII and IX there was a fall in the standard of performance in different subjects except in the first language. (xxi) There was a rise in the degree of variations in the achievement levels of pupils in detention classes as well as the non-detention classes at upper primary and secondary stages. (xxii) There was no significant change in the

mean achievement levels of pupils in the detention classes. (xxiii) There was a slight reduction in the drop-out rate at the primary stage, during the non-detention period for boys and girls and it was slightly higher among girls. (xxiv) The fall in the drop-out rate was significant at the secondary stage for boys and girls, and the fall was to the extent of 25 per cent.

1390. SCERT, *Evaluation of Night Primary Schools in Andhra Pradesh*, Hyderabad, 1978

The objectives of the study were: (i) to compare the attendance of the children who had shifted from day school to night school, (ii) to identify the socio-economic groups taking advantage of night primary schools and the reasons for their not availing the facilities, (iii) to assess the academic achievement of the students, (iv) to identify the reasons for non-enrolment of children in the age group 6 to 11 years either in the day schools or in the night schools and for irregular attendance of pupils in the night schools, and (v) to find out whether the children enrolled in night schools attended regularly and put in the minimum percentage of attendance.

The sample consisted of the night primary schools of the randomly selected six districts, namely, Krishna, Srikakulam, Chittoor, Kurnool, Warangal and Medak. The separate questionnaires were prepared, one for the school and the teacher, and the other for parents and other key persons. An achievement test in three R's was also prepared. The investigators personally visited the night primary schools to gather data.

The study yielded the following findings: (i) In most of the night primary schools, children were admitted in Grade I, while in some schools, Grade II was also functioning. (ii) Almost all the children in the night primary schools were admitted afresh, and they had never attended any school. (iii) The number of children shifted from the day school was almost nil. (iv) Very few children were admitted from the category of the drop-out. (v) The night primary schools were located either in the day school or in the Gram Panchayat Offices. (vi) The furniture, charts, etc., of the day school were being used. (vii) Enrolment in the night primary schools was not so encouraging, as many children of school-going age remained not enrolled. (viii) Attendance of the children at these schools was poor. (ix) Poor attendance of the children in the night primary schools was due to their participation in other activities like helping their parents in farming, looking after the young children at home, etc. (x) The parents of these children were illiterate and

most of them were agricultural labourers. (xi) The Income range of the family was between Rs. 100 and Rs. 200 or above Rs. 200. (xii) Most of the children belonged to the Scheduled Castes and backward classes. (xiii) There were practically no incentives for the children or the teachers. (xiv) The performance of the children in the night primary schools was generally poor. (xv) There was no scope for games and other activities in the night primary schools.

1391. SENGUPTA, P.R., VARSHNEY, R.G., MANOCHA, L., BHATIA, V.K. and KULKARNI, S.P., *Scientific and Technical Manpower for Research and Development*, IAMR, 1978

The objectives of the investigation were: (i) to study the pattern of employment of scientific and technical manpower, both regular and *ad hoc*, engaged in research and development in the University sector, and (ii) to work out a project-wise manning pattern for research and development in the University sector and to estimate the additional expenditure on salary of *ad hoc* scientific and technical personnel per project and per *ad hoc* scientific and technical personnel.

In all, 132 science, technology and engineering departments of forty-one institutions were selected. Filled-in questionnaires were received from ninety-eight departments belonging to thirty-four institutions. From the collected data, percentages were computed.

The findings of the investigation were: (i) Scientific and technical personnel in this sector consisted of regular scientific and technical personnel who were engaged in both teaching and research, and *ad hoc* scientific and technical personnel who were engaged only in research. (ii) All the *ad hoc* scientific and technical personnel and about 73 per cent of the regular personnel were engaged in research and development projects. (iii) In the research and development projects, for every *ad hoc* scientific and technical personnel there were approximately two regular ones. Functionally, for every three research and development personnel, there was one auxiliary/supportive personnel. (iv) Sixty-seven per cent of the regular research and development personnel were faculty members, the remaining were regular research officers/associates and research/teaching assistants. All the guides/principal investigators of the research projects were faculty members, and accounted for about 50 per cent of the faculty members engaged in research and development projects. (v) More than 90 per cent of the

research and development personnel in research projects were engaged in basic and applied research and less than 10 per cent in designing and development. (vi) Academic specialization-wise, nearly 60 per cent of the scientific and technical personnel belonged to the area of natural science, 21 per cent to engineering and technology, 11 per cent to medicine and Health sciences, 4 per cent to non-science and technology areas and only 1 per cent to agriculture and veterinary science. (vii) Among natural scientists nearly 48 per cent had a doctorate degree, 47 per cent had Master's degree and the remaining were Bachelor's degree holders. While the Bachelor's degree holders were mainly engaged in auxiliary functions, a considerable proportion of Master's degree holders were also engaged in auxiliary functions. (viii) In the case of engineering and technology, doctorate degree holders accounted for about 40 per cent of the population and Master's degree holders for nearly 49 per cent of the population. The remaining were Bachelor's degree and diploma holders. Nearly all the doctorate degree holders and most of the Master's degree holders were in faculty positions. (ix) Nearly 75 per cent of the scientific and technology personnel belonging to medicine and health sciences possessed postgraduate degrees; all of them were engaged in research and development functions. The Bachelor's degree holders in medicine were engaged in research and development functions as well as in auxiliary functions. (x) More than 78 per cent of the scientific and technical personnel belonging to non-science and technology areas were engaged in auxiliary functions while all the agricultural scientists were engaged in research and development functions. (xi) All the auxiliary personnel were placed in the first three pay scale groups of below Rs.425, Rs.425-700 and Rs.550-900 with only two exceptions. (xii) The largest number of research and development personnel (34.17 per cent) were placed in the pay scale group of Rs.700-1600 which corresponded to the revised lecturer's pay scale but also included unrevised pay scales of Readers, Associate Professors and Professors. (xiii) There was a fair correlation between earning and the level of educational qualification. (xiv) The average size of research and development projects in this sector was small. Out of 652 research and development projects, 174 projects were manned by the principal investigator alone, 215 projects had one additional research and development personnel and 115 had an additional two research and development personnel. (xv) On an average, one guide looked after as many as 2.73 projects while one regular research and development personnel was engaged in 0.91 project at a time. (xvi) The average ex-

penditure per project on the salary of *ad hoc* personnel was Rs.6,694 and average annual expenditure per *ad hoc* research and development personnel was Rs.5,737.

- 1392.** SHAH, M., *Survey of Resource Utilization in Polytechnics of Eastern India*, TTTI, Calcutta, 1981

The objectives of the survey were: (i) to locate the strengths, in terms of the resources of workshops, library and teaching aid, of the polytechnics of the region, (ii) to identify the areas of short-fall of resources available with individual polytechnics compared with the 'standard' recommended by the Eastern Regional Committee (ERC), (iii) to examine the mode of utilization of available resources by the polytechnics, (iv) to identify the nature of out-dated and unserviceable materials such as equipment, spares, etc., in the polytechnics, (v) to recommend ways and means to meet the short-fall/improved utilization of existing resources within the constraints of individual institutions, (vi) to prepare a data base of polytechnic material resources in order to conduct growth studies of individual polytechnics from time to time, and (vii) to identify utilization factors for future allocation and support of individual polytechnics.

Eastern region being extended from Arunachal Pradesh in the east to Bihar in the west with West Bengal and Orissa in between and having a wide range of status, size and history of each polytechnic, besides other factors, it was decided to use the ERC standard list as the basis in studying the resources available with an institution and the scope of its expansion, modernization and replacement. Specific and extraneous variables and intrinsic factors were grouped under different heads depending upon their presumed scope and degree of influence on institutional environment covering the background history. The departments and their staff structure, future plans, etc., including geographical and industrial location, were tabulated in Institutional Data Sheet. In studying the departmental resources, categories were made with 'Environmental Data' reflecting the extraneous factors and 'Material Data' giving various physical and material resources available with an individual section.

The general recommendations were: (i) All vacancies in the posts of teaching and supporting staff should be filled in immediately, with persons having dynamism and leadership qualities in addition to the specified qualifications and training. (ii) Regular short-term training courses and conferences should be organized for the

existing staff members. (iii) To sustain an effective academic environment in the polytechnics and to undertake promotional activities, the library should provide easy access to its readers, public information, bibliography, reference guides. Technical journals appropriate for the polytechnics, IS Codes, teachers guides, etc., should be regularly procured. (iv) Polytechnics should organize in-house short courses in collaboration with the TTTI for all teachers and support staffs to enhance the general awareness of the role of audio-visual aids in technician education, their use and maintenance. (v) Opportunities should be created through the design of proper laboratory exercises and workshop practice classes for more effective students' participation. (vi) Items of critical nature and special requirements should be procured well in advance by the laboratories to avoid failure and disappointment during a scheduled experiment. (vii) Well-calibrated instruments and measuring devices should be readily available during laboratory and workshop practice classes. (viii) Safety drills and codes need to be practised in all laboratories and workshop classes at all stages to make it a habit in the students, to develop confidence among them, and to avoid damage and loss of costly material and equipment. (ix) Manufacturers' catalogues containing specifications, maintenance charts with codes and practices, trouble-shooting procedures, etc., need to be readily available near work-station, laboratory set-ups, workshop equipment and machine tools. (x) For improved utilization of the existing resources, meaningful inter-departmental service linkage should be developed within each polytechnic.

- *1393.** SHAH, M.M., *A Comparative Study in Scholastic Achievement of the Students Who Have Taken Their Primary Education in Corporation Schools or in Privately Managed Primary Schools*, CASE, MSU, 1982 (MSU-financed)

The objectives of the investigation were: (i) to compare the scholastic achievement of the students coming from schools run by the corporation and by private managements, (ii) to compare the intellectual ability of the students of Standard X coming from the two types of schools, (iii) to know about the socio-economic status and family background of the students coming from the two types of schools, (iv) to study the attitude of the parents towards their wards' education, (v) to study the reactions of the teachers towards primary education, and (vi) to see the impact of sex, entry level at school, parents' education and occupation, reading facilities at

home and school, etc., on their scholastic achievement.

The investigation was conducted with the help of a questionnaire for students and an opinionnaire for parents and teachers. The sample consisted of 732 students of Standard X from a representative sample of Gujarati-medium schools of Baroda city. Data through the opinionnaire were collected from twenty-eight parents and fifty-four teachers. Scholastic achievement was measured in terms of performance on the external Board's examination. Intelligence test constructed by Desai and Bhatt was used to measure the intellectual level of the students.

The findings of the investigation were: (i) The students expressed their liking for mathematics, science and languages. (ii) The females were getting higher percentage in scholastic achievement but the difference was not significant. (iii) The number of years studied in a particular type of school had no impact on scholastic achievement. (iv) There was significant difference in the achievement of students coming from the two types of schools with respect to mathematics, science and English and also with respect to total achievement. (v) The mean intelligence score of the students coming from privately managed schools was higher than that of the students coming from the corporation schools. (vi) The parents' education and occupation had no impact on the scholastic achievement of the students. However, the socio-economic status did influence the scholastic achievement of the students. (vii) Regarding the library facilities at the primary level and the secondary level, there was no difference between the two groups. (viii) There was significant difference between IQ categories of the students and their scholastic achievement. (ix) The parents opined that corporation schools were not up to the mark and the students were remaining weak as the knowledge of the teachers was poor. (x) The attitude of the teachers toward students was not favourable in the corporation schools. (xi) Physical facilities and academic facilities were inadequate in the corporation schools.

- *1394. SHAH, M.R., *A Study of Incidence and Factors Responsible for Dropping out of Children from Municipal and Local Authority Schools in Greater Bombay and Thana District from Standards I to VII during the Last Four Years, i.e. 1973 to 1977*, Gujarat Research Society, 1983 (NCERT-financed)

The objectives of the investigation were: (i) to esti-

mate the incidence of dropping out of boys and girls in different language schools conducted by Municipal Corporation, Greater Bombay and local authorities, and (ii) to study the factors responsible for the high incidence of drop-out.

The hypotheses formulated were: (i) A study of the drop-out cases will enlighten researchers regarding the various causes of the drop-out and thereby help in remedying it. (ii) Improved teaching techniques and the use of suitable instructional material will minimize the dropping out. The study was conducted in Greater Bombay and Thana district and was confined to municipal schools, municipal-aided schools and a few zila parishad schools in Thana district. The study was conducted in four phases. Phase I comprised the estimation of the incidence of drop-out in the area and a study of its causes. Phase II covered case studies of the drop-outs. Phase III was confined to a special study of five schools while in the last phase an experiment was conducted in two schools, one Marathi- and the other Gujarati-medium school. The study necessitated the preparation of a data form for collection of information about drop-outs and a questionnaire for case studies of the drop-outs.

The first phase of the study revealed: (i) The total number of drop-outs in Marathi-medium municipal schools was the highest in Standard I and the lowest in Standard VII, with a sharp rise in the percentage of drop-outs in Standard V. (ii) The rate of drop-out in Gujarati-medium municipal schools in Greater Bombay was the highest in Standard I and the lowest in Standard VII. (iii) The total number of drop-outs and the rate of drop-out in Hindi-medium municipal schools were the highest in Standard I and the lowest in Standard VII. (iv) In the Urdu-medium municipal schools the rate of drop-out was the highest in Standard I in 1975-76, in Standard II in 1974-75, in Standard III in 1974-75, in Standard IV in 1976-77, in Standard V in 1973-74 and in Standard VI in 1975-76. (v) In the English-medium municipal schools the rate of drop-out was the highest in Standard I, high in Standard V, the lowest in Standard VII and low in Standard VI. (vi) In the Telugu-medium schools the rate of drop-out was the highest in Standard I generally, but at times in Standards II and III. (vii) In the Tamil-medium schools, the rate of drop-out was the highest in Standard I. (viii) In the Malayalam-medium schools the drop-out rate was not constantly high in any particular standard. (ix) The average rate of drop-out in all the four years was the highest in Telugu-medium and the lowest in Malayalam-medium schools. (x) The drop-out rate was constantly high in Hindi and Telugu-medium schools. (xi) In the municipal-aided schools the rate of drop-out

was the highest in Marathi-medium schools in 1973-74, in English-medium schools in 1975-76 and in Sindhi-medium schools in 1974-75. (xii) In the zila parishad schools, the total number on the roll was the highest in Standard I and the lowest in Standard VII with a sharp decrease from Standard V onwards. (xiii) The sex-wise analysis indicated no difference in the rate of drop-out of boys and girls, generally.

The case studies of the drop-outs revealed: (xiv) As many as 40 per cent parents had not attended schools at all while 54 per cent had education up to Standard IV or VII. (xv) Out of 366 parents, 261 were in service, 35 were labourers, 28 were in business and 24 were hawkers. (xvi) Of the 366 parents, 206 had an income between Rs.300 and 500 while 127 had an income between Rs.101 and 300. (xvii) Approximately 60 per cent parents were on duty six to eight hours per day and in some cases both the parents were out on duties which were not of a regular nature and therefore were out the whole day. (xviii) Domestic trouble like ill health of parents or the need to look after younger brothers or sisters in the family was one of the factors responsible for pupils' leaving schools. (xix) A majority of the drop-outs left schools for helping parents at home, a few for taking up jobs and fewer than one per cent for helping parents in trade.

The study of stagnation in the five schools indicated: (xx) The frequency of failure was the highest in Standard I and somewhat high in Standards II and III. (xxi) Though some pupils failed seven times in the same class, they continued.

The experiment of trying out improvements in the methods of teaching and use of better instructional material revealed: (xxii) According to the heads and the teachers 11 a.m. to 5 p.m. was the ideal timing for the school. (xxiii) Both the groups felt the impact on pupils was their personal cleanliness, attendance in school, habits, speech and behaviour and love for school. (xxiv) Activity method was useful in teaching arithmetic as it helped create interest in the subject. (xxv) On the whole, the experimental treatment resulted in significantly better achievement while teaching Gujarati in Standard II and arithmetic in Standard I in Gujarati-medium schools. (xxvi) In the Marathi-medium schools the treatment proved significantly better in all the subjects except general knowledge in Standard II.

1395. SHAH, S., *A Study of the Impact of School Climate on Students and Their Teachers in Aligarh District*, Ph.D. Edu., Agra U., 1981

The objectives of the study were: (i) to find out if there

were various types of school climates in different schools, (ii) to find out the impact of different types of school climates on the teacher's personality and his performance, (iii) to find out the impact of the school climate on the adjustment of students, (iv) to find out the impact of different types of school climate on the self-concept of students, and (v) to find out the impact of different types of school climate on the academic achievement of students.

The hypotheses were: (i) The school climate was not the same in different schools. (ii) The school climate had an impact on the teacher's personality and his performance. (iii) The school climate had an impact on the adjustment of students. (iv) The students' self-concept changed in different types of school climate. (v) The school climate had an impact on the academic achievement of students. The tools were the Hindi version of Organizational Climate Description Questionnaire (OCDQ), a scale for students' evaluation of the teacher and his teaching, Adjustment Inventory (Sinha and Singh), Self-Concept Test (Bhatnagar), Group Test of General Mental Ability (Jalota) and Personality Inventory (Saxena). The students' marks obtained in the final examination were taken as academic achievement and were converted into standard scores. The researcher used graphical and suitable statistical analyses for the verification of the hypotheses.

The study yielded the following findings: (i) Each institution possessed a specific school climate which had no influence on the teacher's personality. (ii) The students' perception of their teachers was not similar in all the schools. All male and female teachers (urban and rural) had more or less similar personality with slight differences; among the urban population, the sex differences in students' perception were prominent in the paternal type of school climate. Among the rural population, the differences in students' perception in controlled, paternal and closed climates were significant. (iii) Adjustment made positive contribution to achievement; differences in adjustment were significant between the urban males and females. The differences of the means of adjustment between the rural males and females were not significant. (iv) In different school climates, the differences in adjustment were significant (autonomous climate). The results were just the opposite in the case of controlled, paternal and closed climates. (v) Adjustment was an important contributor to achievement. (vi) The school climate did not affect the adjustment. (vii) The school climate had an impact on achievement of the student; in schools with different climates, in the rural and dents). For case study fifty ex-NCC cadets were

urban areas, the differences were not significant except under paternal climate. (viii) Achievement of girls was better in both the rural and urban areas; achievement was the highest in closed climate, next in paternal and autonomous climates, and the lowest in the familiar climate. (ix) Achievement was significantly related to intelligence. (x) The differences between the self-concept of males and females were significant; the self-concept of the urban females was quite high. Differences were significant in the case of all the four populations. (xi) There was no impact of the school climate on the self-concept of the student.

***1396.** SHARMA, D.K., *A Study of Management of Education Systems with Special Reference to Decision-making and Organizational Health*, Ph.D. Edu., MSU, 1982

The main objectives of the investigation were: (i) to study the management of a Technological University with respect to governance, decisional participation of faculty members and organizational health, (ii) to study the management of a Technically Oriented University with respect to the three aspects, (iii) to study the management of a Indian Institute of Technology with respect to the three aspects, (iv) to compare the three systems, namely, Technological University, Technically Oriented University and Indian Institute of Technology, with respect to the three aspects, (v) to study the relationship between the existing decisional participation of faculty members and organizational health, (vi) to study the relationship between the expected decisional participation and organizational health, and (vii) to study the relationship between the existing decisional participation and the expected decisional participation.

The study was limited to Technical Education Systems — Technological Universities, Technically Oriented Universities and Indian Institute of Technology. At the time of conducting the study there were three Technological Universities, two Technical Oriented Universities and five Indian Institutes of Technology. Final data for the study were collected from three institutions, one each belonging to the three categories. Sample for the study consisted of 400 professors, readers and lecturers, of whom 200 belonged to the Technological University, 70 to the Technically Oriented University and 130 to the Indian Institute of Technology. The tools used for data collection were two instruments related to decision-making participation and questionnaire on organizational health, all developed by the in-

vestigator. The data were analysed using percentage, mean, standard deviation, t-test and product moment correlation. Also the Organizational Health Questionnaire developed under the study was factor analysed.

The major findings of the investigation were: (i) The three educational systems, namely, Technological University, Technically Oriented University and Indian Institute of Technology, were different from the governance point of view. Technological University had syndicate as its topmost governing body. Technically Oriented University consisted of Senate as the topmost body for governance though executive powers were with the Syndicate. In the case of Indian Institute of Technology the topmost body for all the Institutes was the I.I.T. Council with a Board of Governors in each Institute. In Technically Oriented University the governing body had got representation from staff, students and community members. (ii) Existing decisional participation of the faculty members was less than the considerable participation for the three education systems studied. (iii) In all the three educational systems faculty members wanted more participation in different situations. (iv) There was significant difference between the existing and the expected decisional participation for all the three educational systems. (v) Relationship between organizational health and existing decisional participation of the faculty members was significant. (vi) There was no significant relationship between organizational health and expected decisional participation. (vii) The existing decisional participation and the expected decisional participation were related with each other. (viii) Factor analysis revealed that all the ten dimensions of the Organizational Health Questionnaire were related with one another. Only one dominant factor was found out, which was named as Organizational Effectiveness.

1397. SHARMA, M.P., *An ex post facto Study of the Effectiveness of NCC Programme with reference to Some Characteristics of Cadets*, Ph.D. Edu., Mee. U., 1981

The main objectives of the study were: (i) to evaluate the effectiveness of NCC programme at the college level with regard to self-concept, values, level of aspiration, adjustment problems and dependence-proneness, and (ii) to conduct case studies of ex-NCC cadets to highlight the findings of the study.

The sample consisted of 400 cases—200 NCC cadets (100 science cadets and 100 arts cadets) and 200 non-NCC college students (100 science and 100 arts stu-

selected. An *ex post facto* criterion group design was used. The tools used were Self-Concept Scale (Bhatnagar), adaptation of Allport Vernon Study of Values by Bhatnagar, Level of Aspiration (Dwivedi), Adjustment Inventory for college students (Sinha and Singh), Dependence Proneness Scale (Sinha). For the case study, a self-appraisal questionnaire based on criterion measures was used.

The major findings of the study were: (i) The NCC cadets had higher achievement self-concept and higher confidence self-concept than the non-NCC college students. (ii) The non-NCC college students had higher withdrawing tendencies, inferiority feelings and emotional instability than the NCC cadets. (iii) There was no difference between the NCC cadets pursuing science and the NCC cadets pursuing arts courses with regard to achievement, confidence, withdrawing tendencies, inferiority feelings and emotional instability dimensions of self-concept. (iv) The NCC cadets had higher aesthetic and social values than the non-NCC college students. (v) The non-NCC college students had higher theoretical, economic, political and religious values than the NCC cadets. (vi) The NCC cadets with arts courses had higher social values than the NCC cadets with science courses. (vii) The NCC cadets with science courses had greater religious values than the NCC cadets with arts courses. (viii) The NCC cadets had higher level of aspiration than the non-NCC college students. (ix) The NCC cadets with arts courses had higher level of aspiration than the NCC cadets with science courses. (x) The NCC cadets had greater adjustment problems than the non-NCC college students in the home, emotional and educational areas. (xi) The non-NCC college students had greater adjustment problems than the NCC cadets in health and social areas. (xii) The NCC cadets with arts courses had greater adjustment problems than the NCC cadets with science courses in home area. No significant difference existed in both the groups in health, social, emotional and educational areas. (xiii) The non-NCC college students were more dependence-prone than the NCC cadets. (xiv) The NCC cadets with science and arts courses did not differ on dependence-proneness. (xv) The follow-up study revealed that the NCC training developed high character, feelings of comradeship, capacity of leadership, emotional stability and moral integrity among the cadets.

ing and Communicating Innovation and Their Impact on Adoption Process, Ph.D. Edu., MSU, 1979

The major objectives of the investigation were: (i) to study the characteristics of the various levels of educational resource system, and the process of developing and communicating innovations, (ii) to find out the relationship between the characteristics of the resource system and the level of adoption of innovations, and (iii) to study the relationship between the adoption of innovations, on the one hand, and the processes of developing and communicating innovations, on the other.

Hypotheses of no relationship between the characteristics of resource system and the level of adoption of innovations, process of developing innovations and the level of adoption and, lastly, the process of communicating innovations and the level of adoption were formulated. The investigation was descriptive-cum-correlational involving the three variables under study, namely, characteristics of innovations, process of developing innovations, process of communicating innovations and the criterion variable of process of adoption. Descriptive statistics and relationship by rank order correlational technique were used for data analysis. The sample consisted of all educational resource systems at the national level, twelve educational resource systems at the state level selected at random, three systems at the regional level and seventy teachers' colleges in the country. The tools of research were a questionnaire and a rating scale. The reliability index of the rating scale by test-retest method was 0.78.

The major findings of the investigation were: (i) The characteristics of the resource system affected the level of adoption of innovations. (ii) The linkage between educational resource systems and their clients affected the level of adoption of innovations. This linkage appeared more pronounced in all types of educational resource systems except the local ones. (iii) The structure of the educational resource systems affected the level of adoption of innovations. To be effective the educational resource system should have a meaningful division of labour and coordination of efforts. (iv) All types of educational resource systems had a high degree of willingness and readiness to help other institutions in the development of innovations and be influenced by their clients' feedback. (v) Capacity, reward, proximity and synergy also influenced the level of adoption of innovations. (vi) The awareness of innovations affected the adoption process. (vii) Most of the educational resource systems disseminated innovations through lectures or

1398. SHARMA, R.C., *A study of the Characteristics of the Resource System and the Process of Develop-*

printed materials and only a few used the radio or television for this purpose. (viii) In one-way feedback of communication, most of the resource systems usually elicited feedback through survey methods. A few regional level systems elicited feedback at times through the evaluation method. (ix) Most of the resource systems used, to some extent, a two-way communication of innovations. They had a high degree of consultant relationship with their clients. Only a few resource systems used T-group technique, role-playing technique or action research technique to communicate innovations.

- 1399.** SHARMA, R.C., *A Study of Educational Forecasts: an Analysis and Proposal*, Administrative Staff College of India, Hyderabad, 1980 (Department of Science and Technology-financed)

The investigation attempted (i) to analyse the forecasts and trends of education in India as proposed in selected studies and to examine the implications of their findings, and (ii) to present a proposal for education in 2000 A.D., incorporating the important variables emerging from the analysis of the forecasts. For the purpose of analysis, nine studies were selected for review (Jayaraman, Kunthala, 1978; Ruddar Datta, 1977; Es-wara Reddy, 1978; Citizens for Democracy, 1978; Education Commission Report, 1964-66; Ezekiel and Pavas Kar, 1976; Coombs, 1976; Seth, 1978; and Rohatagi, Rohatagi and Bowonder, 1979). The intuitive and speculative, trend extrapolation and relevance trees were the three technological forecasting techniques used by these studies for presenting the educational scenario for 2000 A.D.

The important findings of the review were: (i) India had 232 million adult illiterates in 1971 out of whom 100 million were in the age group 15-30 years. (ii) The enrolment at the primary, secondary and university levels was 72.65 million, 7.17 million and 2.21 million, respectively in 1971. It was expected to increase to 167.0 million, 39.5 million and 13.0 million at the primary, secondary and university levels respectively by 2000 A.D. (iii) To accommodate the estimated enrolment in 2000 A.D., India would require an additional 20 lakh and 8 lakh new classrooms for primary and secondary stages, respectively. Similarly, to meet the anticipated enrolment of 13.0 million in higher education in 2000 A.D., nearly 3,000 more colleges would be required. (iv) India would require over 37 lakh, 14 lakh, and 5.2 lakh qualified teachers, respectively, for the primary, secondary and university levels in 2000 A.D. (v) The drop-out rate was

very high at the school level in India. (vi) In 2000 A.D., India would have to invest in educational system 8 to 10 per cent of the GNP, amounting to between Rs.16,000 crore and Rs.20,000 crore. (vii) There would be an over-production of graduates in general education, law, medicine and education in 2000 A.D. (viii) The total number of those with matriculation, intermediate and graduate qualifications were 8.2 million, 2.7 million and 1.5 million, respectively, in 1971, out of whom 5.1 million matriculates, 1.9 million intermediates and 1.1 million graduates were employed. If this trend continued, the stock of educated manpower would be much in excess of the manpower needs of the nation in 2000 A.D. (ix) Four areas were identified to be considered for developing the system of education in 2000 A.D. These were: (a) universal literacy, (b) universal elementary education, (c) manpower requirements and higher education, and, (d) expenditure on education.

- 1400.** SHARMA, R.C., *Policy of Non-detention in Andhra Pradesh: an Evaluation Research*, Administrative Staff College of India, Hyderabad, 1981 (NCERT-financed)

The objectives of the study were: (i) to critically examine the process involved in formulating the policy of non-detention in the State of Andhra Pradesh, (ii) to critically examine the implementation of the non-detention policy, (iii) to find out the impact of non-detention policy on the rate of wastage at the primary and the secondary stages, and (iv) to examine the impact of the non-detention policy on the scholastic achievement of students at the primary and the secondary stages.

The sample consisted of 995 students selected on the basis of stratified random sample from fifty high schools of Hyderabad and Ranga Reddy districts. Besides, a few educational administrators, bureaucrats, academicians and leaders of teachers' associations who were directly or indirectly connected in the implementation of the non-detention policy in Andhra Pradesh were also contacted. A few headmasters, headmistresses, teachers, parents and students also constituted the sample for the investigation. The tools employed were an unstructured interview schedule and a data sheet. The unstructured interview schedule was devised in order to collect information about the formulation of the non-detention policy and its implementation from educational administrators, bureaucrats, academicians, leaders of the teachers' associations, teachers, headmasters, inspecting staff and parents. The data sheet provided informa-

tion of an individual student regarding his annual examination performance in terms of marks from Standard I to VII and from Standard VI to IX on the first language, social studies, mathematics (general) and science. Mean and percentage were employed to analyse the data.

The investigation yielded the following findings: (i) The non-detention policy of the Government of Andhra Pradesh came about in a dramatic manner. It appeared that there was little consulting with or eliciting views of the various sections, interested in educational policy. It was more a political decision. (ii) The State Council for Educational Research and Training was entrusted with the implementation of the policy of non-detention. The Department of Education, Government of Andhra Pradesh, organized, through the SCERT, various state-level conferences of district education officers, headmasters and experienced teachers during 1971-73. Various departments of the SCERT organized training programmes for the members of the Common Board of Examination, headmasters and senior teachers of upper primary schools and the inspecting staff of various districts. (iii) The policy of non-detention contributed, to some extent, to reducing the educational wastages at the primary and the secondary stages. (iv) The sustaining capacity of the schools to retain girls increased more than double during the non-detention period as compared to the pre-non-detention period. Similarly, the sustaining capacity of the schools to retain the boys increased almost one and a half times at the primary and the secondary stages under the non-detention system. (v) The quality and standard of education deteriorated to some extent under non-detention system. (vi) The scholastic achievement of the students decreased at the primary and the secondary levels. The scholastic achievement of the students was relatively low in Standards III, IV, V, VI, VIII and IX. (vii) The scholastic achievement of the students for a few subjects had shown a gradual decrease at the primary and the secondary stages.

- 1401.** SHARMA, R.C., and Others, *A Profile of Salur Taluk*, Administrative Staff College of India, Hyderabad, 1978

The study aimed at exploring the various resources and to identify the courses and training programmes in order to set up a community college at Salur taluk of Srikakulam district in Andhra Pradesh. It also attempted to collect the opinions of various people towards a community college at Salur taluk.

A profile of Salur taluk was prepared on the basis of the statistical information collected from various sources. An unstructured interview schedule was devised to elicit the opinions about a community college at Salur taluk. Discussions were held with the members of the Lions Club, former MLAs, Chairman of the Panchayat Samithi, Assistant Director of Agriculture in Srikakulam district, the Commissioner of Salur taluk, the Tehsildar and a few other community members. The investigators also visited various places to identify the possible training centres for the community college.

The study yielded the following findings: (i) The literacy rate of Salur taluk was 12.9 per cent and 144 inhabited villages were having primary schools in 1971. (ii) There were 357 primary school teachers, 143 upper primary school teachers, 75 secondary school teachers at Salur taluk in 1977. (iii) There appeared to be potential resources available in Salur taluk, which could be explored and made use of in setting up a community college. (iv) Most of the people were enthusiastic about having a community college. (v) It was found desirable not to have a heavy investment on the campus. (vi) Central facilities such as hostel, library, administrative offices, one or two lecture rooms, a small auditorium and a demonstration mixed farm could be located on the campus. Many of the activities of the college could be off-campus wherever training facilities could be made available. (vii) Courses in automobile engineering and repair work could be started in selected centres at Salur. (viii) Training could be started in oil, sugar, rice and timber mill technologies in selected centres. (ix) Health education programme could be started with the help of Reconstructive Surgery Unit of Concordia Mission and Artificial Limb Centre, Salur. (x) Adult education and non-formal education could be started through community college in order to educate the large number of illiterates in Salur. (xi) There appeared to be a demand for typists and stenographers in the Salur taluk and the community college could meet it.

- 1402.** SHARMA, V.S., *Enrolment and Attendance of Pupils in Elementary Schools of Udaipur District*, SIERT, Udaipur, 1977 (NCERT-financed)

The main objectives of the investigation were: (i) to study the impact of enrolment drives in increasing the enrolment of pupils at the primary stage, (ii) to find out the relative effectiveness of ungraded unit system of teaching Classes I and II with respect to enrolment and attendance, (iii) to assess the impact of incentives such

as midday meals, free textbooks and free dresses on enrolment and attendance, (iv) to find out the impact of appointing lady teachers in coeducational institutions on the enrolment of girls, and (v) to find out the impact of children's play centres on the enrolment and retention of pupils in schools.

The sample for the study consisted of 440 primary schools which included both rural and urban, and boys' and girls' institutions. The sample was selected on a stratified random basis providing proportionate representation to rural and urban schools. Data were collected with the help of three instruments, viz., a school information blank, an interview schedule for teachers, and an interview schedule for parents.

The major findings of the investigation were: (i) The mean enrolment of the pupils had been increasing progressively from the session 1970-71 to the session 1975-76. This, however, could not be attributed solely to enrolment drives. (ii) There was no significant difference between the attendance figures of the pupils getting incentives and those not getting incentives. (iii) After introducing ungraded unit system of teaching in Classes I and II, the index of wastage remained almost static at 9 per cent for these classes. (iv) In the case of Classes III to V the indices of stagnation came down to 7.91 per cent (in 1975-76) from 9.78 per cent (in 1970-71). (v) Regarding institutions without lady teachers, three out of five critical ratios were found to be significant at 0.01 level of significance, implying that the enrolment of girls was increasing steadily in the schools even without the presence of lady teachers.

1403. SHASTRI, C., *Human Resource Development and Educational Planning in Kumaun*, Ph.D. Eco., Kum. U., 1977

The main objectives of the study were: (i) to compute the human resource development on the basis of levels of educational attainment and the number of persons in relation to population, (ii) to explain intra-sectoral diffusion of literacy and other profiles, (iii) to adjust the educational system according to the needs of the community, (iv) to prepare the students for life in the community with the assumption that their standard of living will depend on the level of their productivity.

It was a survey research. Data were collected from secondary sources, e.g. departments of home and education, Harijan Kalyan Vibhag, census department and quinquennial reports along with books and other research records. Percentages and equality coefficient

were used as the main statistical devices to analyse the data.

The findings of the study were: (i) Though the literacy percentage for the region was impressive, yet there certainly existed inter-sectoral anomalies. (ii) A strong preference for white collar jobs was identified among the students. (iii) A significant number of students were not clear about their career, symbolizing the general problem of directionlessness. (iv) Unemployment among arts and science graduates was found to be related to the dominance of government jobs and lack of demand for these graduates in private business. The problem centred on the deficiency of their training. (v) The number of jobs created in the public sector in 1973 was approximately half the employment provided through the employment exchange offices. (vi) Higher education had expanded unrelated to the expansion of primary education. (vii) The number of female literates was very low, particularly in rural sectors. Though women's education had been gradually progressing, yet it was found to be limited even at the elementary level, consequently leading to a wide gap between male and female education. (viii) The migration rate among rural people was higher than among urban people. (ix) The coefficient of equality for the region was below that for the state level. The average coefficients for the region were 44.71 while it was calculated as 68.4 and 53.4 for India and U.P., respectively. (x) It was revealed that the higher the level of education, the lower was the coefficient of equality, i.e. the higher the rate of drop-outs. (xi) Because of rugged terrain and large number of smaller villages, the number of schools at the primary level was high in Kumaun as compared to the U.P. aggregate but even then the incidence of rural drop-out was high. (xii) The number of rural entrants to college was low, particularly for females, the Scheduled Caste and Scheduled Tribe students, as compared to the number of the urban entrants. (xiii) The design of the educational structure should be radically different for rural areas from that of the traditional lock-step system, implying that intense efforts should also be made to non-formalize education at the primary stage. (xiv) Unemployment remained high even in well-defined manpower at under-graduate levels viz. engineering and medicine. Though postgraduates in engineering had shown low incidence of unemployment, the same remained high for postgraduates in medicine.

***1404. SHIRGOPIKAR, S.G.,** *A Study of Wastage in Education of Girls (Stds. VIII to X) in the High Schools in Kolhapur Corporation Area*, Ph.D.

Edu., Shi. U., 1983

The objectives of the study were: (i) to find out the extent of wastage apparent and clear, (ii) to find out the causes of wastage, and (iii) to suggest remedies.

The survey method was followed. In 1974-75 there were forty-five high schools in the Kolhapur Municipal Corporation area. The girls admitted to Standard VIII were 1,948 in number from all these high schools in the year 1974-75. They formed the cohort. The career of each member of the cohort was followed till she left the school either after appearing for the S.S.C. examination or before. To find out the causes of wastage, the children and their parents were interviewed.

The major findings of the study were: (i) Out of 1,948 girls, only 19.97 per cent passed the S.S.C. examination within the prescribed period of three years resulting in 80.03 per cent apparent wastage. (ii) Out of 1,948 girls, 395 girls stopped their education prematurely, resulting in 20.28 per cent clear wastage. (iii) Out of 100 clear wastage cases, 30 left before completing Standard VIII, 43 before completing Standard IX, and 27 left before completing Standard X. (iv) The percentage of clear wastage was the highest in Standard IX and the lowest in Standard X. Eighty per cent of wastage was seen in the age group 14+ to 17+. (v) The percentage of wastage was more in backward communities than in advanced communities. (vi) Among literate and educated families, as the educational qualification of family members increased, the percentage of wastage decreased. (vii) Up to 15+ the tendency of wastage increased as the age increased. But after 15+ as age increased the percentage of wastage decreased. (viii) The causes of wastage were socio-cultural (43 per cent), economic (26.4 per cent), educational (21.6 per cent) and physical (9.0 per cent). (ix) Socio-cultural causes included marriage, social belief (that the grown-up girls should not learn), indifference of parents, behaviour of girls due to over-sex attraction, and unsafe environment for girls to come to school. Economic causes included wastage due to household work or employment outside home or inability to raise the required finance for the education. Educational causes included wastage due to failure, burden of studies, striking off the name by school due to poor performance, lack of facilities in the nearby locality, and change of medium of instruction. Physical causes included wastage due to illness and diseases, mental handicap and retardation, deaths and accidents.

The recommendations to minimize the percentage of wastage were: (i) Change should be brought about in the primitive attitude and outdated views about the girls'

education through parent-teacher association. (ii) A separate cell should be established in school to detect the reason of drop-out. (iii) The law restricting early marriage should be enforced strictly. (iv) Sex education should be given at the secondary stage. (v) Afternoon schools should be started for girls. They should be encouraged and given grants on the lines of night schools. (vi) Change of syllabus should be made according to the aptitudes of the girls. Compulsion of mathematics should be removed. (vii) Education at the secondary level should be made free or at least one failure should be allowed for concession in fees to economically backward cases. (viii) Through Students' Aid Centre, educational materials should be provided. 'Earn while you learn' scheme should be started. (ix) Medical help, the rules of hygiene, education about how to take care of children in the pregnancy period and after birth should be given through Medical Centres in schools. (x) Special classes for retarded slow learners, and repeaters should be started in schools. (xi) To improve the studies at the basic stage, trained graduate teachers to teach mathematics and English should be appointed at the upper primary level. (xii) Emphasis should be laid upon character-building.

1405. SHRIVASTAVA, H.S., *Growth of Private Enterprise in Education in Madhya Pradesh (from 1860 to 1970)*, Ph.D. Edu., Sag. U., 1973

The objectives of the study were: (i) to trace the history of private enterprise in education in Madhya Pradesh, and (ii) to compare the participation of private enterprise vis-a-vis governmental efforts in education in Madhya Pradesh.

Data were collected through a questionnaire, library study, personal visits and interviews with the principals, heads and other staff members of educational institutions run by private enterprises. The data were presented in separate sections dealing with formation of M.P., education by private enterprise from 1860 to 1903, 1904 to 1947, 1948 to 1956 and 1957 to 1970, grant-in-aid system and qualitative improvement. In each period the analyses were made with reference to certain regions and levels of education, namely, pre-primary, primary, secondary and higher education.

The findings of the study were: (i) In 1891-92 there were only 18 primary schools with little more than 450 enrolments under private enterprise as compared to more than 1,000 primary schools under the government; there were no secondary schools under private enter-

prise in 1891-92, whereas there were more than 150 government-run secondary schools during that period. (ii) During 1904 and 1947, 12 pre-primary schools were established by private enterprises of which only two were recognized. (iii) By 1926-27 the number of primary schools under private enterprise rose to 310 with aid, 142 without any government aid but recognized and another 215 without governmental aid but recognized. (iv) By 1931-32, quite a few missionary schools were closed due to financial problems. (v) By 1947, there were six boys' and eight girls' middle schools under private enterprise, all but one were aided by the government; the number of Indian middle schools was 136, government aided, and another 83, unaided. (vi) There were 64 aided and 53 unaided higher secondary schools in Madhya Pradesh by 1947. (vii) By 1953, there were 38 recognized and 39 unrecognized pre-primary schools. (viii) During the same period the number of middle schools rose to 168 compared to about 1,500 such schools under government, municipality and district boards. (ix) There were 77 higher secondary schools by 1957 under private enterprises. (x) During the period 1957 and 1970, the private enterprises were running 158 pre-primary schools (compared to 156 run by government and local bodies), 301 aided primary schools and 409 unaided primary schools, 162 aided and 118 unaided middle schools, 310 aided and 133 unaided higher secondary multipurpose schools. (xi) Along with increase in the number of schools run by private enterprises at various levels, the enrolment increased considerably. (xii) The number of teachers appointed also increased. (xiii) The increase led to various problems pertaining to availability of resources. The important ones were payment of salary to teachers, timely training of teachers, school buildings, equipment and physical facilities, etc. (xiv) For qualitative improvement, provisions were made for the training of teachers for pre-primary education; the qualification of teachers was fixed at matriculation level; pay scales were made equivalent to those of government schools, and so on. (xv) In primary education the teacher's qualification was fixed at higher secondary with provision for grant-in-aid. (xvi) At the middle level the main efforts to improve the quality were: the nationalization of textbooks for the revised curricula; revision and fixation of pay scales as per government norms; grant-in-aid related to the number of trained teachers, leading to the training of more teachers. (xvii) For higher secondary education also similar steps were taken.

1406. SHUKLA, A., *A Study of Teachers' Alienation in*

relation to Principals' Administrative Styles, Administrative Effectiveness and Some Other Organizational Characteristics of the Schools at +2 Level, Ph.D. Edu., Mee. U., 1980

The major objectives of the investigation were: (i) to study the extent of alienation present in the teachers of intermediate colleges, (ii) to study how the alienation of the teachers was related to the administrative styles of the principals of the colleges, and (iii) to study how teachers' alienation was related to some other organizational characteristics of the school such as its size, location, type of management, functional effectiveness, etc.

The hypothesis formulated were: (i) Alienation was present in all the teachers and it was normally distributed over the total sample of the study. (ii) Alienation was related to the administrative style of the principals. (iii) Administrative effectiveness of the principal was related to teachers' alienation. (iv) The urban-rural location of the school was differentially related to teachers' alienation. (v) There was significant difference in the degree of alienation found in the teachers of boys' and girls' schools. (vi) There was significant difference in the degree of alienation found in the teachers of large and small schools. (vii) There was difference in the degree of alienation found in the teachers of private and government schools. The sample consisted of 760 teachers selected from thirty-seven intermediate colleges of Meerut region through the systematic sampling technique. Data were collected through teachers' Alienation Scale, Administrative Style Questionnaire and Administrative Effectiveness Scale. The K-S test and Chi-square test were used for testing the hypotheses.

The findings of the investigation were: (i) Alienation was present in varying degrees in all the teachers of the intermediate colleges. (ii) In some colleges the degree of alienation in the teachers was less while in others it was more. Thus, the colleges differed among themselves with regard to teachers' alienation. (iii) Alienation was not normally distributed in the sample. (iv) There was linear positive correlation between authoritarianism and alienation. (v) The administratively more effective college principals generated low degree of alienation in the teachers while the administratively less effective principals caused higher degree of alienation in them. (vi) The rural-urban location of the colleges was not linked with the level of alienation of the college teachers. (vii) Sex was linked with teachers' alienation. Lady teachers were more prone to alienation from work. (viii) Higher degree of alienation was present in the teachers of large colleges as compared to the teachers of small colleges.

(ix) The teachers of private colleges were having higher degree of alienation than those of government colleges.

1407. SHUKLA, K.C., *Factors Differentiating High and Low Academic Performance of Secondary Schools in Rajasthan*, Ph.D. Edu., Udaipur, U., 1978

The study aimed at finding out (i) the differences in intelligence and socio-economic status of student population of secondary and higher secondary schools with high and low academic performance, (ii) the differences in teacher population of secondary and higher secondary schools with high and low academic performance, (iii) the differences in physical facilities in secondary and higher secondary schools with high and low academic performance, and (iv) the differences in secondary and higher secondary schools with high and low academic performance in terms of admission pattern, fee pattern, pattern for individual coaching, co-curricular activities and parental contacts.

The sample comprised institutions, teachers and students selected on the basis of three-year index numbers, numbering 20 secondary and higher secondary schools (10 high and 10 low), 157 teachers (85 from high performance schools and 72 from low performance schools), 358 students (175 from high performance schools and 183 from low performance schools).

The findings of the study were: (i) There was no difference in the salary stability, relationship with the head and non-teaching assignments of teachers in the high and low performance schools. (ii) The student population of high performance schools were distinctly superior to the student population of low performance schools in terms of intelligence and socio-economic background. (iii) The teacher population of high performance schools was superior to that of low performance schools in terms of qualifications, both qualitative and quantitative, relationship with the head, stability, workload and job satisfaction. (iv) Physical facilities in high performance schools in terms of school building, sanitation, equipment, library, admission pattern, fee pattern, individual coaching, co-curricular activities and parental contact were superior to those in low performance schools. (v) The teachers of low performance schools had greater experience in teaching, greater job satisfaction, less teaching load and a greater feeling of being overworked.

1408. SHUKLA, O.P., *A Comparative Study of Envi-*

ronments of Professional and Non-professional Teaching Institutions of Higher Education, Ph.D. Edu., Meerut, U., 1980

The objectives of the study were: (i) to evaluate the instructional environment of professional (engineering, medical, law and teachers' training) and non-professional teaching institutions of higher education, (ii) to compare the environments of engineering and medical, engineering and law, engineering and teachers' training, medical and law, medical and teachers' training, and law and teachers' training institutions, and (iii) to ascertain the difference in the environments of non-professional and engineering, medical, law, and teachers' training institutions.

The study formulated the hypotheses that (i) the professional and non-professional teaching institutions differed with regard to their environments, and (ii) the different professional teaching institutions differed among themselves with regard to their environments. The sample consisted of four professional and two non-professional institutions. The typical professional institutions were selected for the purpose of this study while non-professional institutions were selected randomly. The study used Meenakshi Organizational Climate Questionnaire consisting of nine dimensions — disharmony (D-1), hindrance (D-2), support and satisfaction (D-3), authoritarianism (D-4), thrust (D-5), democracy and freedom (D-6), academic emphasis (D-7), discipline and control (D-8) and lack of facilities (D-9). The K-S two-sample test was used for testing the hypotheses.

The findings of the study were: (i) There were significant differences on dimensions D-1 to D-8 among professional and non-professional teaching institutions while their environments were alike on dimension D-9. (ii) The engineering and non-professional teaching institutions differed on all the dimensions except on D-2. (iii) The environment of medical teaching institutions was totally different from that of non-professional institutions. (iv) The environment of law institutions and non-professional institutions was alike except on D-2. (v) There were significant differences between the teachers' training institutions and non-professional institutions on dimensions D-1, D-2, D-5, D-7, D-8 and D-9. (vi) The environments of medical and engineering teaching institutions were similar in all the nine environmental characteristics. (vii) The environment of engineering institutions significantly differed from that of the environment of law colleges. (viii) The environment of engineering institutions was different from the environment of teachers' training institutions on dimensions D-1

to D-8 while for dimension D-9 the null hypothesis was retained. (ix) There were significant differences between the environments of medical and law colleges on all the dimensions. (x) The environment of medical institutions was different from that of teachers' training institutions on all the dimensions except on dimension D-9. (xi) The environment of law institutions was different only on dimensions D-2, D-8, D-9 and D-7 from that of teachers' training institutions.

1409. SHUKLA, P.C., *An Evaluation of Leadership in Educational Administration at District Level*, Ph.D.Edu., Mee. U., 1981

The objectives of the investigation were: (i) to evaluate the existing educational leadership meaning thereby to identify the styles of leadership with regard to the dimensions of initiating structure and consideration, (ii) to probe into the relationship that might be existing between the styles of educational leadership as measured in this study and teachers' morale, (iii) to study the relationship between the styles of educational leadership and teachers' attitude towards their job, (iv) to study if there was any impact of sex on educational leadership, and (v) to study if there was any difference between perceptions of rural-urban leadership at this level of education. The hypotheses framed were: (i) Educational leadership could be described in terms of the dimensions of the leadership scale and its individual items. (ii) The two styles of educational leadership differentially characterized the existing administrative leadership at the district level. (iii) Educational leadership at the district level was not perceived alike in girls' and boys' schools. (iv) Educational leadership was not perceived alike in the schools located in urban areas and those located in rural area. (v) Educational leadership in general influenced teachers' morale. (vi) Each of the two dimensions of educational leadership initiating structure and consideration was significantly related to teachers' morale. (vii) Educational leadership in general influenced teachers' attitude towards their job. (viii) Each of the two dimensions of educational leadership initiating structure and consideration was significantly related to teachers' attitude towards their job.

The sample consisted of 500 basic school teachers of Sitapur district selected through the systematic sampling technique. Data were collected through Educational Leadership Behaviour Description Questionnaire, Teachers' Morale Scale and Teachers' Attitude Scale. The K-S two-sample test of significance was used for

testing the hypotheses.

The findings of the investigation were: (i) The teachers perceived the leadership in educational administration at the district level to be positive and desirable. (ii) The consideration style of leadership was more dominant in the administrative behaviour of the educational leaders at the district level. (iii) The general educational leadership including both the dimensions was perceived in the girls' schools to be more positive and desirable than in the boys' schools. (iv) The teachers in the girls' schools as compared to the teachers in the boys' schools perceived the existing leadership as adopting more of initiating structure style of administration. (v) The rural and urban school teachers perceived alike the existing educational leadership in general as well as dimension-wise. (vi) High desirable leadership of the administrators generated higher morale in the teachers, while low desirable leadership caused low degree of morale. (vii) The 'initiating structure' and 'consideration' dimensions of educational leadership also emerged significantly correlated with teachers' morale. (viii) There was linear positive correlation between educational leadership and teachers' attitude towards their job. (ix) The 'initiating structure' dimension of leadership also appeared to be significantly related with teachers' attitude towards their job. The 'consideration' dimension did not seem to be related to the teachers' attitude towards their job.

1410. SINGH, D.R., *A Study of Role Expectations, Job Satisfaction and Aspiration Level of Block Education Officers of Haryana*, Ph.D.Edu., Kur. U., 1982

The objectives of the study were: (i) to find out if there was a consensus among block education officers on various items concerning their role (actual behaviour), (ii) to find out if there was a consensus among block education officers on various items concerning their role (expected behaviour), (iii) to find out if there was a consensus among seniors (district education officers, sub-divisional education officers) on various items concerning block education officer's role (actual behaviour), (iv) to find out if there was a consensus among seniors on various items concerning block education officer's role (expected behaviour), (v) to find out if there was a relationship between actual behaviour and expected behaviour as perceived by the block education officers themselves, (vi) to find out if there was a relationship between the block education officer's own perception and the

senior's perception of block education officer's role. (vii) to find out if there was a consensus among block education officers on various items concerning job satisfaction, and (viii) to find out if there was a consensus among block education officers on various items concerning the aspiration level.

The study was carried out on all the block education officers, sub-divisional education officers, deputy district education officers and district education officers of the State of Haryana. The main tool of data collection consisted of eighteen scales of Gross on various aspects of role theory of block education officers (BEOs). The scales were either administered personally or mailed. In all, 112 BEOs and 50 seniors responded. The data so collected were analysed through Chi-square test of equality, independence and correlated proportions.

The findings of the study were: (i) There was a general consensus among BEOs' perception of their own role on the items contained in the scales, namely, initiative, function rating, educational progressivism, division of labour, worry scale, actual performances, friendships, departments' actual performances and expectation for attributes. (ii) There was no consensus among BEOs in their own perception about items contained in participation behaviour scale (actual). (iii) There was a consensus among BEOs that they were doing the activities associated with their job fairly well and sometimes excellently. (iv) The BEOs in general showed consensus on a significant majority of items in the job satisfaction scale. (v) There was a general consensus among the seniors on a significant majority of **items in the scales — BEOs functions rating scale, expectation for division of labour, BEOs' behaviour scale, BEOs' friendship behaviour scale, department's performance scale and expectation of BEOs' attributes.** (vi) There was a general consensus among the seniors that BEOs were performing their functions well. (vii) There was an agreement of views among the BEOs and the seniors regarding items contained in the scales—**expectation for BEOs' friendships, BEOs' actual participation behaviour scale, and expectations of BEOs' attributes.** (viii) There was no consensus among the BEOs and the seniors on items concerning expectation for division of labour. (ix) There was no general directional conclusion whether the BEOs agreed or not on their expected and actual behaviour for four pairs of scales concerning their behaviour—expected division of labour vs. BEOs' actual division of labour, expectation for BEOs' performances vs. actual performance, expectation for BEOs' friendship vs. actual friendship behaviour, expectation for BEOs' participation vs. BEOs' actual participation

behaviour.

1411. SINGH, M.N., *A Mini Study of Education at the School Stage in the State of Meghalaya*, Office of the Field Advisor, NCERT, Shillong, 1980

The study attempted to highlight a few important aspects of the existing system of education in the State of Meghalaya and suggest some measures for improving the present condition. The available literature and some records of the Department of Statistics, Directorate of Education, Meghalaya, were screened and the obtained data were analysed in terms of frequency and percentages.

The major findings of the study were: (i) In the academic year 1976-77, in all 24.5 per cent of the teachers were trained and 75.5 per cent of them were untrained at the high school level. Out of the total number of trained teachers, 41 per cent were males and 59 per cent females. In all 20.7 per cent of the teachers were **trained and the remaining 79.3 per cent untrained at the middle school level.** Out of the total number of trained teachers 58.47 per cent were males and 41.6 per cent females. In all, 44.57 per cent of the total number of teachers were trained and the remaining 55.5 per cent were untrained at the primary school level. (ii) Approximately, 5,000 teachers were untrained at all the levels, viz., high, middle, primary and pre-primary levels. (iii) There was a significant expansion of facilities at the middle stage during 1971 and 1976. The number of schools and enrolment recorded an increase of 39.47 per cent and 20.66 per cent, respectively, during the said period. (vi) The expansion of facilities at the high school stage during 1971 and 1976 was also quite significant. The number of schools and enrolment recorded an expansion of 25.0 per cent and 34.28 per cent, respectively, during the said period. (v) The government provincialized a number of private middle and high schools, (vi) To provide instruction in science at the primary and the secondary stages, a 'science education programme' with the assistance of UNICEF/NCERT was launched in the State, and fifty primary and thirty middle schools were covered in the pilot phase. (vii) Education was made free for all students belonging to the Scheduled Castes and Tribes. The education of boys and girls belonging to all other communities was made free up to Class VI and Class VIII, respectively. (viii) The medium of instruction for the majority of the students was Khasi, Jaintia and Garo up to the middle stage and English at the high school stage. For the students of linguistic

minorities like Assamese, Bengali, and those belonging to Hindi-speaking states facilities existed for providing instruction in the respective languages both at the middle and the high school stages in addition to English as the optional medium of instruction.

1412. SINGH, N., *A Study of Administrative Problems of Affiliated Colleges*, Ph.D. Edu., MSU, 1981

The objectives of the investigation were: (i) to study the college plant and physical facilities provided in the colleges and problems arising out of them, (ii) to study the administrative problems with respect to management board of colleges, affiliating university, etc., (iii) to determine leadership behaviour patterns of the principals of the colleges, (iv) to determine the organizational climate prevalent in the colleges, and (v) to find out the relationship of the administrative problems with leadership pattern and organizational climate of the colleges.

The sample was drawn from among the affiliated colleges of the Gujarat University and Gorakhpur University. A stratified random sampling method was used to select the sample for the study. Data were collected by using College Data Sheet, Checklist for Administrative Problems, Leadership Behaviour Description Questionnaire and Organizational Climate Description Questionnaire. The collected data were analysed by using percentages, frequency distribution and t-test.

The major findings of the investigation were: (i) All the colleges were having playgrounds with adequate facilities for outdoor games and indoor games. (ii) In organizing co-curricular activities, lack of interest among the students and financial stringency were the major problems. (iii) There was HH pattern of leadership behaviour in the Gujarat University and LL pattern in the Gorakhpur University. (iv) Twenty per cent of the colleges belonged to open climate and 30 per cent to closed climate. (v) The colleges of open climate had lower score for problems and the colleges of closed climate had higher mean score for problems.

1413. SINGH, S.N., *Progress and Problems of Primary Education Varanasi District*, Ph.D. Edu., Pat. U., 1981

The purpose of the study was to examine the progress of primary education in the district of Varanasi in the light of the Government policies on education from time to time. The problems connected with its expansion,

qualitative improvement, administration and finance were synthetically isolated and suggestions offered to solve them. Data from primary as well as secondary sources were collected. District gazetteers and original records in the libraries were the main sources of information. Other sources of information were tapped to find out new experiments in education in the district.

Through a brief historical review it was shown that the existing pattern of primary education was an outcome of various experiments made in the past in the form of lower primary, upper primary, central, preparatory, and primary schools. The question of expansion was also tackled by establishing night schools, half-time schools and special schools but these efforts could not find favour with the people. The reorganization of primary education along the lines of basic pattern in 1948 was considered a landmark.

Despite rigorous attempts made by the Government, the results had been far from satisfactory. Equal emphasis should be given to both quantitative development and qualitative growth. To improve the quality of primary education in Varanasi district, the measures suggested were: improvement of curriculum, better science education, introduction of socially useful productive work and in-service education of teachers. To maintain steady progress, an adequately strengthened and equipped inspecting staff with some powers was also essential. To solve the financial problems, great effort was needed at all levels — the state, the district, the block and the village.

1414. SINHA, D.P. and others, *Descriptive-cum-Analytical Study of Nagaland Education System*, Administrative Staff College of India, Hyderabad, 1977 (Government of Nagaland-financed)

The study aimed at (i) reviewing the existing administrative system of the educational development in the State of Nagaland with particular reference to decision-making and control, performance review and monitoring system, planning and budgeting including allocation of financial resources and organization of support system, and (ii) identifying critical points in the administration of education in the State and to suggest improvement in the administration of the educational system.

The sample consisted of 2,428 teachers, headmasters, and field administrators of Nagaland. Data were collected through questionnaires for teachers, headmasters and field administrators. Interviews were conducted

with educational administrators at the Secretariat, Directorate, Inspectorate at Kohima, district and lower levels, principals and teachers of colleges, headmasters and teachers of high schools, middle schools and primary schools, and parents and public men in Nagaland. Mean and percentages were used in processing the data.

The study yielded the following findings and recommendations: (i) Each one of the 986 villages in Nagaland had one or more primary schools. There were 258 middle schools and 86 high schools spread all over the State except in the backward districts of Mon and Tuensang. (ii) There were nine colleges of various disciplines in the State in 1977. There were two institutions for undergraduate level technical education. There were 705 graduates in these colleges in 1977. (iii) Teachers from outside the State were given a contract of five to ten years. (iv) There appeared to be a need for systematic improvement of the physical facilities available in the schools. (v) The syllabi and curriculum of the schools needed a revision in the light of present realities, needs, and anticipated changes in the State. The syllabi were found to include too little information on the heritage and culture of the people of Nagaland. (vi) There emerged a strong need to reorganize the Directorate of Education and the Secretariat.

- 1415. SINHA, D.P. and Others, *Management of School Education in Goa, Daman and Diu*, Administrative Staff College of India, Hyderabad, 1977 (Government of Goa, Daman and Diu-financed)**

The study attempted to (i) describe the existing system of educational administration in the Union Territory of Goa, Daman and Diu, (ii) formulate guidelines for evolving effective working relationship with the teachers, privately managed schools and the education department, (iii) make recommendations for streamlining the functional efficiency of the education department in terms of organization, structure and managerial processes in providing quality education and administration in the Territory, and (iv) frame guidelines for opening and recognizing new schools.

The study undertook field investigation through extensive interview with teachers, headmasters, their association representatives, and officers of the Directorate of Education at the headquarters and zonal and taluka levels in Goa.

The findings of the study were: (i) In 1976-77, there were 979 government primary schools as against 137 private primary schools, and their enrolments were 94,664

and 23,063, respectively. Primary education was mainly offered by government institutions, while the majority of the schools at middle and secondary levels were non-government private institutions. There were 136 government middle schools with an enrolment of 9,316 students, averaging 69 per school. However, there were 47,077 students in 219 private middle schools, averaging 215 students per school. (ii) The educational administration in the Territory was centred around the Directorate of Education, which was responsible for school (Classes I to X) and higher secondary education (Classes XI to XII). The Directorate was responsible to the Secretariat for its functioning. The state administration for education was controlled through the secretariat and the Directorate of Education. At the secretariat level, the Secretary for Education was also the Development Commissioner of the Territory. He was assisted by the Under-Secretary (Revenue). (iii) There appeared to be an urgent need to avoid duplicate roles between administration and academic administration, particularly at the zonal level. (iv) The ungraded pattern at the primary school level needed adequately trained teachers. (v) There was need for teachers' development at other school levels also. (vi) There were about thirty-five ADEIs in the three zones besides one each at Daman and Diu.

The study made recommendations within areas covering (a) administrative structures (both organization at headquarters and zonal levels), (b) rationalization of schools, (c) wastage and stagnation, (d) inspection, (e) school complex system, (f) teacher training, (g) government teachers' transfer, (h) medium of instruction, (i) technical/vocational education, (j) grant-in-aid code and (k) teacher-private management — directorate interface.

- 1416. SINHA, D.P. and RANGANATHAN, *Management of School Education in Karnataka*, Administrative Staff College of India, Hyderabad, 1976 (Government of Karnataka-financed)**

The study attempted to investigate the working of the Directorate of Public Instruction and its subordinate units in order to improve organization, methods and the information system. The study covered the organization and administration work at the various offices, the methods adopted by the administration and the extent and effectiveness of the procedures and systems followed by subordinate offices in rendering support to the Directorate. The work of various sections of the directorate

rate and a number of divisional and district offices at Mysore, Shimoga, Dharwar, Belgaum, Tumkur, Mercara, Bangalore and Bijapur was examined. The investigators also visited some of the secondary and primary educational institutions, under government as well as private management, apart from the training institute for office workers at Dharwar.

The investigation yielded the following findings: (i) The Director of Public Instruction represented the apex of the administrative hierarchy for school education. (ii) The joint directors assisted the director with regard to secondary school education. An additional director looked after entire primary education. (iii) There were four divisions, each headed by a joint director. Each of these four divisions covered a number of districts headed by a deputy director of public instruction, who was, in turn, assisted by a number of assistant education officers heading a taluk or range. (iv) There were twenty-one district officers and one hundred and eighty-four taluk or range officers. (v) Personal records of teachers in their institutions were in a perpetual state of arrears. Teachers' entitlement like increments, advance increments, fixation of salaries and other claims were not initiated on the due dates for obtaining sanction of higher authorities. The last pay certificates on transfer were not issued on time. Pension papers were not initiated and processed on appropriate dates. (vi) The teaching staff spent considerable time and energy in the matters of preparation of salary bills and presenting them to the treasuries. (viii) The service books did not provide for recording changes like marital status, number of dependents, etc. (viii) The design of the service book was such that there was not enough space for recording changes in the name of the employee, the place of residence, qualifications and property, resulting in the inappropriate use of columns, and the use of separate sheets attached, with chances of losing them. (ix) There was an element of adhocism present while considering applications from managements for opening schools or for expansion of existing ones. (x) There were delays in the processing of applications from private schools for the approval of the appointments made by the managements. (xi) There was no check on the number of positions in each grade as given by the schools against the sanctioned strength for each unit. (xii) On an average 500 communications were received by the Directorate every day, and of these receipts, nearly 30 per cent were in the form of reminders arising out of delayed action by the sections. (xiii) There appeared to be no general procedure or pattern for the issue of reminder to lower officers for furnishing the required information. (xiv) In spite of the instructions out-

lined in the handbook for classifying files according to their importance for preservation and repositing in the record room, many of the sections did not follow the procedure. (xv) Almost all the sections retained files whether they were required for immediate use or not.

1417. SINHA, J.B.P., *School Complex*, A.N. Sinha Institute of Social Studies, Patna, 1980 (NCERT-financed)

The major objective of the investigation was to examine in depth the functioning of the scheme of school complex and to find out its effect on inspection, supervision of schools, teachers and students.

The scheme was vigorously introduced only in Nalanda district of Bihar but the study covered two other districts of Sitamarhi and Palamau also. On an average about four primary schools were tagged to a middle school and about three middle schools to a high school. Interview was the main technique used for the study.

The major findings of the study were: (i) There was greater frequency of inspection in the first two years of the scheme but it began to decline when the scheme was withdrawn. (ii) The teachers were of the view that the inspection was to provide more professional assistance in their work. (iii) There was no communication between the inspecting authority and the community. (iv) The greatest impact of inspection was on the punctuality and regularity of the teachers. According to Education Officers, this, however, did not result in improvement of teaching. The students felt that the teachers discussed homework, participated along with them in games and contacted parents where necessary. (v) The teachers of primary schools complained of increased workload. (vi) The community noted improvement in teachers' morale and in teaching but not in the material resources of the school. (vii) There was significant improvement in the attendance of the students. The students took greater interest in their studies and home work specially in primary schools. But they were not provided with the advantage of the use of science laboratories. (viii) Though the scheme emphasized emotional integration through sports and cultural activities, no significant effort was made in this direction. (ix) Overall, the academic climate of the school had improved. (x) The teachers felt that they could provide mass literacy and education in health and hygiene to poor students. They, however, wanted community help in repairing school building, improving discipline, regularizing students' attendance and improving academic standards of the school. Only

25 per cent teachers made efforts to bring school-age children to schools and only one-third of them had any success.

- 1418.** SINHA, J.K., *A Linear Programming Model of Educational Planning*, Ph.D. Stat., Pat.U., 1980

The objective of the study was to analyse the quantitative aspect of educational planning, which was not only to set expansion targets in the educational system but also to restore internal balance within the system and to achieve a balance between the whole system and the society's needs and resources. A dynamic version of the linear programming model was constructed in which the discounted sum of gross national product was maximized subject to a set of constraints operating in the educational and economic sectors. The model took into consideration the reality of the situation by approximating the non-linear relations which appeared due to the introduction of appropriate elasticity of substitution, by **step-wise linear relation**. The linear programming model so constructed was applied to the Indian economy. The sensitivity to the model was calculated, which indicated that the optima were quite sensitive to the particular choice of elasticities.

The main findings of the study were: (i) There was economic desirability of universal primary education. (ii) The secondary school system was rationalized to only two rather than four types of schools. (iii) The primary teaching force was replenished through the university drop-out which was generated as a by-product of university education and training.

- 1419.** SOMAIAH, M., *A Study of the Attitude of Teachers and Students towards Semester System of Education*, IIM, Bangalore, 1980

The main objectives of the study were: (i) to find out the positive and negative attitudes of teachers and students of the **postgraduate level of Bangalore and Mysore Universities** towards the semester system of education, (ii) to find out the differential attitude of students grouped on the basis of the levels of higher education, family size and income, (iii) to find out the differential attitude of teachers working in different levels of institutions and with different specializations, and (iv) to find out the possible reasons for favourable and unfavourable attitudes of teachers and students towards the semester system.

An attitude scale having twenty-six Likert-type items, selected on the basis of the initial responses of 50 students and 10 teachers, was mailed to 500 students and 150 teachers of the **postgraduate departments of the Bangalore and Mysore Universities**. The returns from 280 students (56 per cent) and 118 teachers (79 per cent) formed the final sample of the study. Percentage analysis and chi-square techniques were employed as statistical procedures.

The main findings of the study were: (i) There was no consensus either among teachers or among students for favouring or disfavoured the semester system. (ii) The system was favoured by both teachers and students on certain positive aspects. The system was found to be useful by them on account of the fact that it helped to divide the curriculum into smaller units, that the short duration made learning and teaching more regular and that it kept the students busy throughout the year. (iii) It was not favoured by them because the students were not oriented to studying under this system, they found it difficult to adjust themselves; it needed a lot of planning and there was delay in admission and the starting of classes. (iv) Both the teachers (96 per cent) and the students (94 per cent) tended to agree that the system could be successfully implemented with a smaller teacher-pupil ratio of 1:30. The teachers and the students suggested that the orientation programmes should be conducted for teachers to work under the system. (v) Both the teachers and the students (80 and 85 per cent, respectively) favoured the system since it reduced the stress and strain on the mind of the students. But the students felt that the system reduced the opportunities for co-curricular activities to which about 45 per cent teachers agreed. A majority of the students (78 per cent) and the teachers (75 per cent) tended to favour the system as it helped to reduce the uncertainty of one's success by expanding the scope of evaluation based on the performance throughout the semester. (vi) The chi-square test revealed no significant difference in the attitude of the teachers of institutions for women and of those working in co-educational institutions. (vii) There was no difference in the attitudes of teachers and students of women's institutions, the disciplines of physical sciences and social sciences. There was a significant difference in the attitude of teachers and students of general education institutions and professional institutions. (viii) The students coming from different income groups and from different family sizes differed in their attitude towards the semester system of education.

- 1420.** SOMAIAH, M., *Management of Nursery*

Schools, IIM, Bangalore, 1980

The study attempted to review the management of various facilities, conditions under which the staff worked, financial aspects including payment of salaries, cost per student and procedures and policies adopted in regard to the nursery schools in Bangalore city.

Out of a total 521 schools, sixty-two nursery schools were selected for the purpose of the study representing each of the ranges and all types of management. Data were collected through questionnaires.

Some of the conclusions drawn from the study were: (i) The corporation schools designed exclusively as nursery schools were good and spacious unlike the government schools where a small room in a larger school complex was allotted to the nursery section. The private unaided schools seemed to be financially better off than the private aided schools in terms of their investment on buildings. More than 50 per cent of the schools in rented buildings had overcrowded classrooms and insufficient lighting and ventilation. (ii) The corporation schools were better equipped in terms of blackboards and aids for the development of knowledge. Physical development of children seemed to have higher priority in the private (aided and unaided) schools than in the corporation and government schools as reflected by the average amount spent on this equipment by each school. But the accessibility of this equipment to children was almost zero in the corporation schools. (iii) The aided nursery schools collected fees/donations from the parents of the students. (iv) If the teacher cost per student were to be subjected to analysis in all the four types of management, it would be found that the corporation schools had the highest teacher cost. (v) The overall figures indicated that the space of the staff room in terms of square feet per teacher ranged anywhere from zero to as low as 17 square feet and as high as 112 square feet, and in the case of helpers the lower area was around 20 square feet, and the highest around 300 square feet. (vi) All teachers of the corporation, government and private aided schools (except one in a private aided school) were trained to teach in nursery schools. Among the unaided nursery schools, 27 per cent of the teachers were untrained.

1421. SOMAIAH, M., *Management of Medical Colleges: a Case Study, IIM, Bangalore, 1981*

The study attempted to find answers to some of the major issues concerning medical education. It aimed at

preparing a profile of medical students in terms of their age, sex, marital status, academic status in the college and family background.

A case study of the Bellary Medical College during the academic year 1979-80 was made. Only three of the several interest groups, viz., students, teachers and the alumni, involved in the academic and administrative decisions of managing a medical college, were covered. Separate questionnaires for each of these groups were constructed and used.

Some of the findings of the study were: (i) A majority of the students were within the age group 21-29 years and came from families with educated parents and claimed they had joined medical colleges because of personal interest: about 23 per cent of them were women. Most of the students chose this profession because of its emphasis on service to the community. A majority of them preferred a residential programme, followed by a **postgraduate degree, and a good number of them preferred rural service after their graduation.** If chance permitted, a majority of them would opt for specialization in clinical and para-clinical sciences. Most of the students were financed by their parents, while some got scholarships and fellowships. A small number of them took private loans. (ii) The teachers felt that equipment and other facilities in the college needed improvement and the number of non-teaching staff needed to be increased; they seemed quite confused with the clinical facilities. They felt research received the lowest priority in medical education. They felt that there was not much emphasis on interpersonal aspects of medical care in the training of students. They felt that the increased enrolment, the absence of aptitude for medicine and the inadequate facilities in the colleges were some of the reasons for the deterioration in the quality of medical education. The teachers were quite confident that they had trained their students to meet new situations and to maintain a proper degree of attachment or detachment in dealing with patients. (iii) The alumni considered the internship training as the most relevant aspect of their **medical education. They considered it as training provided by the faculty to identify and deal with diagnostic problems in their career which they might come across while studying.** Several alumni expressed their desire to shift the field of practice from non-clinical to clinical subjects, given as opportunity. They found it difficult to allocate sufficient number of their study hours to follow the latest advances in medical books and journals.

1422. SRIVASTAVA, R.C., *An Investigation into the*

Faculty Participation in the Administration of Institutions Offering Professional Courses of Study, Ph.D. Edu., Del. U., 1980

The overall purpose of the study was to make a survey of the state of faculty participation in the administration of institutions offering professional courses of study. The aims of the study were: (i) to find out what the faculty members of nursing and teacher training colleges understood by participation, (ii) to find out what reasons were advanced by the two groups of faculty members for permitting or not permitting faculty participation in the administration of their institutions, (iii) to find out the areas, levels, channels and extent of participation available to faculty members in the administration of their institution and to compare the faculty participation practices in nursing and teacher training institutions, (iv) to find out the views of the faculty members on their participation in the administration of their institution, (v) to find out and compare the relationship of faculty participation with institution's climate and faculty satisfaction, and (vi) to compare the findings of the present study wherever possible with the study of faculty and student participation in the administration of colleges in Delhi.

The sample consisted of principals/directors and faculty members from fourteen nursing and eighteen teachers' training colleges of thirteen universities. Relevant statistical measures like percentages, chi-square, coefficient of correlation and t-ratios for significance of difference between means were used. For data collection four self-prepared tools, namely, **Participation Scale, Participation Survey Questionnaire, Questionnaire to Measure Institutional Climate and Satisfaction Scale**, were used.

The major findings of the study were: (i) The nursing faculty did not significantly differ from their counterparts in teachers' colleges in respect of the satisfaction they got from their institution, and the type of climate they perceived in their institution, but they significantly differed from one another on the extent of participation made available to them in their institutions. (ii) The correlations between the teachers' participation scores and their satisfaction scores, in each case, nursing, teacher training, and nursing and teacher training combined, were 0.651, 0.780 and 0.585, respectively, which were significant at 0.01 level in each case except nursing where it was significant at 0.05 level. (iii) There was positive relationship between the teacher's participation and perceived institutional climate. (iv) All the four components of institutional environment were not significantly related to teachers' satisfaction. Significant correlation

with teachers' satisfaction was found only with perception of faculty and perception of students.

- 1423.** SRIVASTAVA, S., and GUPTA, S.P., *Survey of the Non-enrolled, Non-attending and Drop-out Children of the Age Group Six to Fourteen in the Ferozepore District*, Dev Samaj College of Education for Women, Ferozepore, 1980 (Planning Commission-financed)

The major objectives of the study were: (i) to determine the extent of non-enrolment, non-attendance and drop-out at the elementary stage of education (age group 6 to 14 years), (ii) to determine the socio-economic composition and sex-wise composition of the non-enrolled, non-attending and drop-out children, (iii) to examine the differential rates of non-enrolment, non-attendance and drop-out children of rural and urban areas, and (iv) to find out whether school variables played any significant role in enrolment, attendance and drop-out.

The sample consisted of fifty primary/middle schools of Ferozepore district, of which twenty were from urban areas and thirty from rural areas. These non-enrolled, non-attendance, drop-out cases were sampled on the basis of one-third of the total of 5,212 cases. The sample also included 200 teachers and parents of 2,500 children and 50 community leaders. The tools of research were inquiry proformas, interview schedules and questionnaires. The statistical technique involved the use of descriptive statistics and t-test.

The major findings of the study were: (i) The percentage of non-enrolled children in the age group six to fourteen years ranged from 2 to 10. Since 1970, the number of non-enrolled children in this age group had been on the increase. The number of girls who tended to remain out of school was higher than that of boys. The incidence of non-enrolment in the rural and urban areas did not differ significantly during 1970-71, 1972-73, and 1973-74 but it differed significantly during 1971-1972, 1974-75, 1975-76, and 1976-77 and 1977-78. (ii) There were significant differences among the non-enrolled children of urban and rural areas but school facilities and the number of teachers had no relationship with the incidence on non-enrolment. (iii) A majority of the non-enrolled children belonged to economically backward class and a majority of their parents were casual labourers, small cultivators, artisans, petty shopkeepers, etc. The educational background of the parents of the non-enrolled children showed that one-third of the parents were ill-

literate and one-fourth has studied up to the middle. (iv) The incidence of non-enrolment was higher in the primary classes than in the middle classes and was more acute in the first three classes. (v) The non-attendance was more acute in rural areas and in the case of girls. There was no significant relationship between school facilities and non-attendance. The same was the case regarding the number of teachers and non-attendance. (vi) More than 50 per cent of the parents of non-attending children were illiterate. The children of uneducated parents in urban areas were more irregular than those of uneducated parents in rural areas. The girls were on the whole more irregular than the boys. (vii) A large majority of the parents of the non-attending children were engaged in manual work like casual labour and cultivation, etc. (viii) The parents of a majority of the non-attending children belonged to economically backward class. (ix) One-third of the children left the primary school before completing the primary education. In the middle schools, the tendency of dropping out appeared to be less. (x) The number of the drop-outs was higher in rural areas than in urban area. Out of 100 children admitted in Class I in rural areas, only twenty-five reached Class VIII, whereas in the urban areas only twenty students dropped out. (xi) The educational background of the parents of the drop-outs was very poor, more so in rural areas than in urban areas. The parents of the drop-out children were economically backward and they belonged to low occupations. (xii) The major reasons given by the parents for non-enrolment, non-attendance and dropping out were: the need of the child to work in homes, unsympathetic teachers, dull curriculum, lack of utility of education, lack of interest in education, lack of text book, and lack of education among parents. The major factors which aggravated the incidence of non-enrolment, non-attendance and drop-out among girls were: lack of separate schools for girls, lack of awareness of the education of girls, distance of school from home and the necessity for girls to look after their young brothers and sisters at home. (xiii) The community leaders felt discouraging teachers' attitude, poverty, parents' negligence, lack of employment facilities, education not related to daily life, and narrow outlook of parents as major factors for non-enrolment, non-attending and dropping out.

1424. STATE INSTITUTE OF EDUCATION, *Educational Wastage at Primary School Level in Haryana, Karnal, 1969*

The main objectives of the study were: (i) to make the

primary school teachers and the block education officers conscious of the need and magnitude of the problem of educational wastage and stagnation at the primary school stage, (ii) to ascertain the incidence of wastage at different grades, (iii) to analyse the causes of educational wastage, and (iv) to suggest action programmes for reduction and ultimately elimination of educational wastage.

The basic data for this study was collected from 133 primary schools with the help of forty-seven block education officers through a **School Information blank** from the seven districts of the State.

The major findings of the study were: (i) The percentage of wastage from Grade I to V was 31.8, 15.17, 8.73, 4.8 and 3.7, respectively. (ii) Poverty, taking up odd jobs to supplement income, involvement of children in domestic work, caste, poor educational background of parents, indifference of parents, low level of occupation, continued presence in one class for more than one year, poor quality of teaching, lack of proper environment at home, educational system not according to the needs of the society, faulty admission policy, lack of proper school environment, death of parents, irregular attendance, undernourishment of the pupils, emotional problems of the pupils and mental retardation were the major causes of wastage and stagnation.

1425. STATE INSTITUTE OF EDUCATION, *Primary Education in Hayatpur, Gurgaon, 1973*

The study was undertaken in Hayatpur, a village about 10 kilometres from Gurgaon. Its major objectives were: (i) to ascertain the total number of children in the age group 6 to 11 as well as the number of children attending primary schools, the number of children who went to school and dropped out, before completing the primary education, and the number of children who never went to primary school, (ii) to study the causes that prevented children in the age group 6 to 11 from going to school or from completing the primary course, (iii) to study the effect of socio-economic and educational conditions of the family on the education of children in the age group 6 to 11, and (iv) to study the measures recommended by parents/guardians to increase the enrolment of children in primary schools and to reduce wastage.

For the collection of data, two forms, A and B, were used. Form A was meant for the family as a whole and Form B was meant for each child in the family in the age group 6 to 11. The information was collected from the

village in a door-to-door survey.

The major findings of the study and suggestions were: (i) There were, in all, 111 families in the village having 951 as total population. Ahir, Brahmin, Saini, Khatri, Kumhar, Lohar, Dhanak, Balmiki and Chamar were the castes in the village. (ii) Out of 146 children in the age group 6 to 11 in the village, as many as 103 were attending school. (iii) Of the forty-three children who did not attend school, four had dropped out (all girls), the remaining thirty-nine never went to school (seven boys and **thirty-two** girls). (iv) Non-attendance of children, especially of girls was related to caste, educational status of the family and particularly to the economic status of the family. (v) Most of the non-attending children were engaged in some work for the family or outside. (vi) If every child of this age group has to be brought to school (a) one more teacher should be added to the local school (it currently had three schools), (b) at least one of the local teachers, and preferably two, should be women, (c) intensive propaganda should be organized in the locality to create public opinion in favour of girls' education, (d) part-time education would have to be introduced in a fairly big way, and (e) the educational system would have to be modified by introducing work experience, relating curricula to local needs, and emphasizing the inculcation of proper values.

1426. STATE INSTITUTE OF EDUCATION, A Critical Appraisal of the Functioning of School Complex Scheme in Haryana, Gurgaon, 1979

The specific aims of the investigation were: (i) to study the history and the background of the school complex programme with particular reference to Haryana, (ii) to obtain first-hand picture of the existing conditions in the schools which inhibited the success of the scheme, (iii) to assess the qualitative and quantitative achievement of the school complex programmes, (iv) to suggest measures to knit the participating and Central Schools into a unified organization structure and consequently to study administrative, organizational and resource (material as well as non-material) aspects of the school complex programme, (v) to recommend appropriate suggestions to make the heads and the teachers of the participating schools responsive to the scheme, and (vi) to identify the objectives of the scheme in precise and concrete terms and to chalk out a well-defined meetings programme for the guidance and motivation of all concerned, particularly the sponsoring authorities. For collecting data a questionnaire was administered to the heads of school

complexes.

The major findings of the investigation were: (i) The Central School assisted the teachers of the participating schools in the enrichment of their subject contents, teaching methods and **organization** of work. (ii) As a whole, in the State lending of reading material and geographical equipment was confined to library and it turned out to be 31.7 per cent and 31.8 per cent, respectively. In the case of games and sports materials the corresponding figure was 12.6 per cent. (iii) The highest visits for supervision were by the B.E.O.'s and the next were by the S.D.E.O.'s and D.E.O.'s. The contribution of the SIE was limited to Gurgaon and its vicinity. Directorate visits were confined to Ambala district. Their visits were invariably in connection with administrative enquiries and contribution to academic affairs was nil. (iv) The contribution of articles in the Prathmic Adhyapak was the highest by the Mohindergarh district and the lowest by Bhiwani district. The analysis revealed that the articles received from the field were not of the desired standard. (v) The respondents suggested that a proposal should be made for the qualitative improvement of the programme mainly comprising **rationalization** of administrative management, follow-up programme, supervision of **school-complex** meetings, improvement in Prathmic Adhyapak, orientation and inculcation of missionary interest about the programme in the resource personnel and increase in the financial grants for the better operation of the school complex.

1427. STATE INSTITUTE OF EDUCATION, Working Holidays in Rajasthan, Udaipur, 1977 (NCERT-financed)

The objectives of the investigation were: (i) to study the feasibility of the working holidays programme in the rural situation with reference to pupils of low socio-economic background, (ii) to locate the areas of maximum and minimum achievement of pupils in the basic subjects with a view to strengthening the strong points and improving the weak areas, (iii) to present a model to pupils, teachers and the schools at large as to the profitable **utilization** of vacations for the betterment of pupils, (iv) to demonstrate optimum utilization of school plant during the vacations, and (v) to study the efficiency of the various activities organized during the programme.

Fifty pupils of Classes VIII, IX and X were selected from eight schools of Rajnagar of Udaipur district with the help of an information blank seeking personal, so-

cial, cultural and educational background information. The four-week programme included a variety of experiences on remedial teaching, enrichment programme, work experience activities, library services, physical education and games and community living. Besides subject teachers, the physical training instructor and the librarian of the school participated. Diagnostic tests were prepared in each of the subjects for use with the students having failed in Class IX examination.

The investigation revealed: (i) Remedial teaching got effectively integrated with the working holidays programme. (ii) The teacher-made diagnostic tests meaningfully diagnosed the weak areas of the students' learning in different subjects. (iii) Diagnostic approach to teaching, individualized instruction, intensive oral drilling and written exercises, planned assignments and the like improved the academic achievement of the pupils. (iv) The pupils profited through systematically planned work experience activities and remedial teaching. (v) Guided use of the library improved the behaviour related to silent reading, referring to books and writing of reviews. (vi) Proper utilization of vacations prevented the pupils from wasting time. Instead it helped increase self-reliance, self learning and self-confidence to participate effectively in physical, productive and social activities.

1428. SUKUMARAN., D., *A Status Study of English Medium Secondary Schools of Maharashtra*, Ph.D. Edu., Poona U., 1980

The major objective of the investigation was to study the status of the English-medium schools of Maharashtra, covering various aspects such as physical facilities, staff, curricular and co-curricular activities, school and community relations, management, etc.

There were 5,686 secondary schools in the State in 1972, out of which 434 were English-medium schools. Of these 434 schools, 384 were ordinary schools and 50 were multipurpose schools. The study was focussed on 384 schools. The tools used were questionnaires, observation schedules, opinionnaires, rating scales, inventories and interviews. The questionnaire for headmasters was sent to all the 384 schools out of which 200 responded. One questionnaire and one opinionnaire were sent to 5,207 teachers of whom 2,310 from 200 schools responded. **Two interest inventories—one for their study habits and the other regarding their interests in school subjects—were responded to by 5,610 students.** One inventory to know the reasons for the parents' sending

their children to English-medium schools was responded to by 2,807 out of 12,000 parents. Forty-seven schools were visited and 500 students were interviewed.

The major findings of the investigation were: (i) Almost all the schools had necessary facilities to run in an efficient manner. Of them, 191 had their buildings, 150 had facilities for future expansion, 70 had special rooms for different subjects and 15 schools had their own hostel facilities. (ii) All the schools had trained headmasters except one which had a headmaster who held a Ph.D. in his subject. The majority had master's degree in arts or science. All had a minimum experience of five years, and all were above 35 years in age. Forty-one had visited other countries. Sixty-five per cent of headmasters had a direct contact with parents and 40 per cent agreed that parents cooperated with them. According to the teachers, the first ten qualities in a headmaster were: intelligence, ability to express ideas, leadership ability, understanding child development, accuracy in observation and reporting, good judgement in school management, good speech, good written expression, ability to manage students and groups and continuing effort at self-improvement. (iii) About 35 per cent of the teachers in the sample who responded were untrained, 21 per cent were foreigners, 65.6 per cent were below the age of forty, 51.2 per cent were Christians and about 92 per cent had a feeling of security in their schools. One hundred and eighty-nine teachers had visited other countries. A large majority of them did not agree that only those children whose mother tongue was English should study in English-medium schools. They felt that the English-medium schools had a status in society. (iv) Only fifty-five schools provided enrichment programme for the gifted children but no special care was taken for retarded children. Religious education was compulsory in forty-one schools. (v) About 83 per cent of the children did not have English as their mother tongue. More boys than girls showed interest in reading books on scientific topics. Girls showed more interest in debate, discussion, elocution, music, etc., than boys. By and large, the students liked newspaper reading, listening to radio talks, etc. All the students knew Hindi. About 28 per cent students used English at home. About 90 per cent of the 500 students interviewed felt that they would have done better in Marathi-medium schools. (vi) Thirty-six per cent schools had parent-teacher associations. Out of 200 schools, 159 were private aided, 41 were private unaided and 108 were run by Christian societies.

1429. SUPE, S.P. and GANORKAR, P.L., *Values of*

Farmers and Agricultural College Students towards Farming, College of Agriculture, Nagpur, 1970

The study aimed at the following objectives: (i) to identify values in relation to farm management process, (ii) to measure the distribution of these values among farmers and students of agricultural college, and (iii) to compare the values of farmers and students of agricultural college. A sample of 236 farmers was drawn by the method of stratified random sampling from the eight districts of Vidarbha region of Maharashtra. Another sample consisting of 100 students was drawn randomly from the list of final year B.Sc. (Agri.) students of the Agricultural College, Nagpur. These students were from the rural areas of Vidarbha. Five value scales, namely, economic motivation, scientific orientation, mental activity, independence and risk performance, were prepared. Thurstone and Likert methods were both used to develop these scales. Finally, each scale had six statements which were rated on the basis of a five-point continuum according to the Likert method. Mean and percentage were employed to analyse the data.

The study yielded the following findings: (i) Nearly 55 per cent farmers fell below the mean score of 23.15 on economic motivation scale. On the other hand, the students had higher mean score (28.41) and 85 per cent of the respondents were above this mean score. The education imparted to the students helped in understanding the input-output relationship of a business. (ii) The farmers and the students differed as regards the scientific value; the students placed a high value on scientific methods in solving problems. (iii) There was little variation between the farmers and the students as regards the value of mental activity. (iv) There was no difference between the farmers and the students on the independence value. (v) The farmers and the students differed greatly on the risk preference scale. The students were more oriented toward taking risks to obtain more profits. (vi) The students preferred to adopt the new technology as they knew it would increase farm profits. (vii) The change in the value of students could be attributed to the education imparted to them.

1430. TALI, T.A., *A Case Study of School Enrolment in Longkhum Village (Nagaland)*, NEHU, 1980

The major objective of the study was to find out the distribution of children according to households and the position regarding their enrolment in a village in Naga-

land.

Longkhum, a village in Mokokchung district of the State of Nagaland, was selected for the study. The village had the highest literacy and enrolment percentage in the State. The survey method was adopted. A questionnaire having items on house number, number of children, age, level of study, sex, place of study, residence, drop-outs, and year of dropout was developed and used. The data were analysed using percentages and averages, wherever required.

The results of the study were: (i) The average number of children per house was four. (ii) Of the 1,093 children in the village, the largest group, consisting of 380, was in the age group one to five years. (iii) The age of children in any single class was broadly scattered. (iv) There was a progressive decrease in the rate of enrolment with increasing level of education. (v) As many as 111 (out of a total of 273) households were sending children outside the village for their education. (vi) The incidence of **dence, drop-outs, and year of drop-out was developed** maximum number of drop-outs was in Classes VI and VIII.

1431. THANGAM, N., *An Experimental Study of Classroom Climate*, Ph.D. Edu., MSU, 1980

The objectives of the investigation were: (i) to change the verbal behaviour of teachers by proper training programme, (ii) to study the effects of sustained changed behaviour on students' performance, (iii) to study the effects of changed behaviour on variates such as pupils' academic motivation, classroom trust, adjustment and expectancy, and (iv) to study the effectiveness of the psychological education inputs in bringing about the change with respect to the major components of psychological developments, namely, goal-setting behaviour, risk-taking behaviour and perception of self-image.

The sample for the study included 21 teachers and 304 pupils (boys and girls) belonging to the same age group, academic level and socio-economic status. The study employed pretest-posttest design with two experimental group and one control group. The teachers of the two experimental groups were trained in FIAC system through a five-day seminar programme. Then the teachers were asked to teach in the classes for six weeks. In experimental group 1, each teacher was provided with feedback after every class, which was not done in experimental group 2. During this period the control group taught in the traditional method of teaching. The tools used to col-

lect data were FIACS, Adjustment Scale, Classroom Trust Scale, Students' Dependency Scale, Students' Activity Scale, Pupils' Academic Motivation Scale, Classroom Climate Scale, Students' Expectancy Scale, Sociometric Scale and achievement tests. Pretest and posttest measures of variables were obtained for all the three groups and t-test was used to compare them.

The major findings of the investigation were: (i) As a **result of teacher behaviour training the teachers** changed their behaviour in experimental groups 1 and 2 whereas there was no such change in the control group. The change was more positive in the experimental group 1 which was provided with regular feedback along with training. (ii) The experimental groups' teachers used more of the categories 1,2,3,4,8 and 9, and less of the categories 5, 6 and 7. (iii) In both the experimental groups, pupils' academic motivation level, adjustment (towards class teachers, principal, companions, subjects, classroom), classroom trust, activity level, students' expectancy level and students' dependency level were increased. (iv) There was a positive gain in classroom climate components, namely, productivity, legitimacy and authenticity, and in total classroom climate, too, in both the experimental groups. (v) The change in **teachers' verbal behaviour led to an increase in pupils'** academic achievement in all the subjects and in the average achievement. The increase was more in experimental group 1. (vi) As a result of psychological education input, pupils became more realistic as they became aware of their abilities, manifested more moderate risk-taking behaviour, developed vivid self-image and set goals having concern for excellence. The posttest measures indicated that the students recognized the teacher as a competent person who could help and guide them to learn; they perceived their role as learners placed in a specific environment and the school as a place for social interaction among themselves.

1432. THAPLIYAL, D.P., *A Study of Classroom Morale: Its Factors and Relationship with Students' Academic Achievement*, Ph.D. Edu., Garh.U., 1981

The objectives of the study were: (i) to measure the relationship of classroom morale with academic achievement of students, (ii) to find out socio-psychological factors contributing to high and low classroom morale, and (iii) to make a comparative analysis of the classroom morale of different types of institutions. Independent variables were school environment, teachers' morale,

teacher-pupil interaction and personality needs of the students.

The sample consisted of the first and every fourth intermediate college taken from the list prepared on the basis of sex, location and mode of administration. In all, 450 students of Class XII and 85 teachers were chosen randomly for the purpose of this study. Organizational Climate Description Questionnaire, Purdue **teachers'** Morale Inventory, Meenakshi Personality Inventory, TOM and SES were administered among the sample subjects to collect data which were analysed with the help of chi-square, coefficient of contingency, Z test and median test.

The main findings of the study were: (i) The boys' colleges showed a clear evidence of association between the dimensions of trust (T), academic **emphasis** (AE), discipline and control (D & C), disharmony (D) and hindrance (H) of school environment and classroom morale (HSE & CM). In the girls' colleges T, AE, support and satisfaction (S & S) and authoritarianism (A) were found associated. In the case of coeducational colleges H, A, D, D & C and democracy and freedom (D & F) were found closely associated. (ii) In the rural colleges D & C, S & S, T and lack of facilities (LF) were found closely associated whereas the urban colleges exhibited clear association between D & C, D and A. (iii) A clear evidence of association was witnessed in the case of A, D & C, S & S, AE and D & C in government colleges while in private colleges, HSE & CM, A and D & C were found associated. (iv) A significant association was observed between teachers' morale and classroom morale in boys' and girls' colleges. Other types of colleges did not exhibit any real evidence of association. (v) In boys' colleges, a clear evidence of association was witnessed between the dimensions—adaptability, truthfulness, status of teacher-pupil interaction and classroom morale. The girls' colleges witnessed clear association in the case of fairness, adaptability, and emotional relationship. Emotional warmth, status and emotional relationship were found associated in the co-educational colleges. (vi) The rural colleges showed clear association in the case of emotional warmth, adaptability, status and trustfulness while in the urban as well as in the government colleges only first three variables were found associated. Similarly, the private colleges witnessed association in terms of emotional warmth, adaptability, emotional relationship and communication. (vii) Personality needs, namely, n-aff., n-end., n-exh., n-dom. and n-agg., were found related with classroom morale in the boys' colleges. But the girls' colleges witnessed significant relationship in the case of n-aff., n-aut., n-suc.

and n-abs. In the coeducational colleges, n-aut., n-nur., n-end. and n-agg. were found associated. (viii) The rural colleges exhibited significant relationship in the case of n-aut., n-aff., n-dom. and n-agg. while in the urban colleges n-ach., n-exh., n-aut. and n-suc. were found related. (ix) In the government colleges, a clear association was witnessed in the case of n-aut., n-ach., n-aff., n-dom. and n-suc., while the private colleges exhibited relationship in the case of n-aff., n-aut. and n-abs. (x) A highly significant and positive correlation was found between classroom morale and academic achievement of the students in all types of colleges. (xi) A highly significant difference was identified between the rural colleges and the urban colleges in classroom morale. No such difference was revealed on comparing other types of colleges.

1433. THIMMAIAH, G., SEETHARAMU, A.S., AZIZ, A. and ROYAPPA, P.H., *Vocational Education: Problems and Prospects — a Case Study of Karnataka State*, ISEC, Bangalore, 1981 (Government of Karnataka-financed)

The study was an *ex post facto* evaluation of the programme of vocational courses implemented in Karnataka. The objectives of the study were: (i) to evaluate the overall demand for vocational skills in Karnataka in relation to the vocational courses offered, (ii) to review the programme of vocational education in the State with respect to enrolment trends, selection procedures, resource position, etc., (iii) to bring the problems of vocational education into focus and highlight the prospects, and (iv) to make policy recommendations on the future programme of vocationalization.

All the forty-five colleges offering vocational courses at the +2 level, i.e. at the pre-university level, in Karnataka, were considered for study. Data from all the principals were collected through a mailed schedule, except for thirteen principals who were interviewed for intensive information. Such information was also collected from eighteen more principals through a mailed questionnaire. The teachers teaching the vocational courses and the students (18 girls and 118 boys from among the present students, and 20 girls and 20 boys from among those who had passed out of the vocational institutions) of these thirteen colleges were also interviewed. Where interviews were not possible with the students, data were collected through questionnaires prepared separately for the current and the passed-out students.

The following were some of the major conclusions

drawn from the study: (i) The courses offered for vocational education were not consistent with the skills identified in shortage category, and the shortage skill categories did not find a place in the list of courses identified. (ii) The proportion of the girls taking up vocational courses increased considerably from the base year 1977-78 through the succeeding years 1978-79 and 1979-80. The proportion of Scheduled Caste students in the enrolment also increased. The participation of the Scheduled Caste girls was slightly higher over the years than that of the Scheduled Caste boys. (iii) In general, there was a rush for vocational courses over the years. Engineering courses were more sought after in urban areas and business courses in non-urban areas. (iv) The colleges gave greater weightage to the parents' traditional occupations while giving admission to students to the various vocational courses. (v) The perception of local needs for the vocationally trained skilled personnel (by the principal and the staff) and the relative demand by a student for a certain type of vocational course emerged as the two major criteria followed by the colleges when they offered a particular course to a student. (vi) The drop-out rate seemed to be higher in courses which were akin to general education courses. (vii) Wastage in vocational education was very low as compared to wastage in the general PUC course. (viii) The equipment position of the colleges offering vocational courses was quite sound. (ix) The colleges depended heavily on part-time teachers to run their vocational courses. (x) Quite a few colleges found it difficult to get teachers for vocational courses. (xi) A majority of the colleges reported that the students were serious about course work or behaved like students in general courses. (xii) A majority of the colleges opined that the grants received by them were quite inadequate.

1434. TOHSIN, S.B.R., *Physical, Social and Economic Problems of the Adolescent Girls of Secondary Schools of Nowgong District*, Ph.D. Edu., Gau.U., 1978

The main objective of the study was to find out the major physical, social and economic problems of the adolescent girls of secondary schools of Nowgong district.

The study was confined to girls in the age group 15 to 18. Based upon the results of a pilot study an elaborate questionnaire was prepared and administered to 1,400 subjects of both urban and rural schools of Nowgong district. Out of this, a random sample of 200 girls (100 from urban and 100 from rural areas) was selected for further

investigation. Mooney's Problem Checklist and Socio-Economic Status Scale (Rural) by Pareek and Trivedi were used. Necessary data were also collected with the help of observation schedule, case study and school survey method. An almost similar study was also carried out in Shillong to compare the problems of the adolescent girls of matriarchal (Shillong) and patriarchal (Nowgong) society.

The study revealed: (i) the nature of adolescent problems varied with social and living conditions. The problems were more often connected with social needs. The possibilities of frustration increased with maturity and the expansion of the needs and wants of adolescents. **The major sources of frustration were cultural demands, the home situation and the school.** (ii) The major physical problems were related to physical discomfort due to menstruation, skin disturbances, physical growth, preoccupation with physical appearance, physical defects, dental, eye and speech problems, tonsillitis, dandruff and hairfall, malnutrition, stuttering or stammering and various illnesses. (iii) The major social problems were related to social acceptance, physical appearance, social status, parental restriction in participation in social functions along with boys, personal security, relationship with peer group members, restrictions to mix with boys, dowry system, lack of education, purdah system (amongst Muslims), child marriages, conservative outlook of the parents, fear of social rejection, sexual adjustment, traditional sex role, and child care problems after marriage, lack of proper education and social approval. (iv) The major problems arising out of the economic conditions of parents were the lack of scope for vocational training (especially in the rural area), poor health, improper and insufficient food, poverty, **malnutrition, large family size, problems of home and family, lack of material possessions, inferiority complex, unhappy home climate, juvenile delinquency, high rate of school drop-out, teenage marriages, tension and conflict.** (v) The adolescents from large families with low parental status had more problems than those from small families with high parental status. (vi) Low economic group adolescents had more problems in the areas of physical development, family relationship, social adjustment and school success than the high socio-economic status group. (vii) Marked contrast was noticed between **matriarchal and the patriarchal societies with respect to the problems of the adolescent girls in economic and social areas.** The problems were almost similar in the physical area but the attitude towards their problems was considerably different. (viii) Analysis of Mooney's problem Checklist revealed that the most troublesome

problem areas were health and physical development, **finance, living conditions and employment, social and recreational activities, courtship, sex and marriage, and home and family.** The total number of problems checked by the sample (N=200) was 8,170. The difference between the urban and the rural girls was not significant in terms of the number of problems.

- 1435. UNİYAL, M.P. and SHAH, B.,** *Regional Disparity in Education with special reference to Hill Region of U.P.*, Dept. of Edu., Kum. U., 1979

The main objectives of the study were: (i) to assess the literacy and occupational state of hill people as compared to the people of other zones of Uttar Pradesh, (ii) to compare the student-school (S-S) ratio and student-teacher (S-T) ratio among different zones of Uttar Pradesh at all educational levels (junior basic level: JBL, senior basic level: SBL, secondary level: SL, and higher education level: HEL), and (iii) to examine these comparisons in relation to different districts of Kumaun and Garhwal.

In the survey various educational records of the Departments of Home and Education, Information and Public Relation and quinquennial reports along with books, journals and other research records were used to collect relevant data.

Some of the salient findings of the study were: (i) The notion that hill regions are educationally more backward than the other regions of Uttar Pradesh was incorrect. The average percentage of literacy in the hill regions was highest among all the regions of Uttar Pradesh. However, there were places where education had not yet reached, e.g. middle part of Niti and Mana Valley, western part of Dharchula, western part of Fateh Parwat and some of the areas of Chamoli, Tehri and Uttarkashi districts. (ii) As compared to the other four (eastern, western, Bundelkhand and central) zones of Uttar Pradesh, for the hill regions the S-S ratio at JBL, SBL and SL was remarkably low but at HEL, it was at par with eastern and Bundelkhand regions. (iii) At all the levels (JBL, SL and HEL) the S-T ratio was highly satisfactory and remarkably lower for the hill zone than the other zones of Uttar Pradesh. (iv) As compared to the other regions of Uttar Pradesh more people of the hill zone were engaged in farming and services. In the occupational groups like trade and business as well as transport, store-keeping and communication, they were nearer the trends in the other four zones of Uttar

Pradesh but more people of these four zones were engaged in agricultural labour, construction and processing departments than the hill area people. (v) Average literacy percentage of Kumaun and Garhwal was nearly comparable. Although there was almost uniformity in Kumaun region yet fluctuations were found in Garhwal, specially in female literacy. (vi) At JBL, SBL and SL, the average S-S ratio for the regions of Kumaun and Garhwal was highly comparable for both the sexes. (vii) The fluctuations in the S-S ratios amongst the districts of Garhwal were sharper than Kumaun. (viii) The distribution of the number of schools (both boys' and girls') per district was highly uneven in both the regions of Uttarakhand. (ix) The secondary schools were not adequate in number in all the eight districts of Uttarakhand. (x) The number of girls' secondary schools was highly dissatisfactory in both the regions. (xi) Excepting in the girls' JBL schools, the S-T ratios were satisfactory in all the districts of Kumaun and Garhwal. (xii) At HEL, in the case of affiliated colleges the S-S ratio was more fluctuating in Garhwal region. Dehra Dun played a very significant role in increasing the average S-S ratio of the affiliated colleges of Garhwal region. (xiii) The average S-S ratio for affiliated colleges was comparable in both Kumaun and Garhwal regions. (xiv) In the case of constituent colleges, its value was nearly 2.7 times more in the constituent colleges of Kumaun University as compared to the similar colleges of Garhwal University. (xv) S-T ratios were highly satisfactory in the colleges (both affiliated and constituent) of Kumaun and Garhwal Universities.

***1436.** UPADHYAY, S.N., *Student Satisfaction in Classrooms*, Dept. of Psychology, RSU, 1978 (ICSSR-financed)

The objectives of the study were to find out (i) whether there were any differences in environmental and satisfaction patterns of various categories of classes and (ii) whether there was any significant relationship between certain dimensions of classroom environment and some aspects of students' satisfaction.

The population of the study comprised all the colleges under the jurisdiction of Ravishankar University except the University's teaching departments; a total of 465 classes were sampled. The unit for the sample was the class, not the student; about twenty-five students were selected from each class and wherever the number enrolled was less, the entire class was sampled. The tools used were a Hindi version of the Classroom Environment

Scale (Moos and Trickett) and the student satisfaction scale developed, on the basis of the ideas of Moos and Trickett, by the investigator.

The study revealed: (i) There were no significant differences in the environmental as well as satisfaction patterns of government and private colleges, coeducational and girls' colleges, undergraduate and postgraduate classes and rural and urban colleges. (ii) When classes from all types of colleges were treated together, all the nine dimensions of classroom environment were correlated to eight aspects of students' satisfaction, which implied that there was no special relationship between a specific dimension of environment and a specific aspect of satisfaction. (iii) There was not much difference in the correlation patterns of government and private colleges. (iv) The correlational patterns for all the classes taken together and the undergraduate classes taken separately did not differ much except for the fact that environment of innovation was poorly correlated to students' satisfaction with the college, class, teacher, rules and extra-curricular activities, which implied that a climate of innovation did not provide much satisfaction to students. (v) As regards postgraduate classes the satisfaction from college and teaching aids and materials was significantly correlated to the involvement dimension only; satisfaction with the class and students was also not significantly correlated to most dimensions of classroom environment. (vi) Classes from coeducational colleges did not differ from all the classes taken together in respect of classroom environment and students' satisfaction. (vii) Among girls' colleges, though the environment of innovation was significantly correlated to several aspects of students' satisfaction, the environment of competition was only related to teachers and rules. Satisfaction with the extra-curricular activities in the college was not correlated to any of the dimensions of classroom environment while satisfaction with the college was significantly correlated to environment of rule clarity only. (viii) The correlation pattern for classes drawn from colleges located in rural areas was considerably different from the total sample. Environments of involvement and teachers' control were significantly correlated to teaching aids and materials and rules; students' satisfaction with the college and teacher was significantly correlated only to an environment of affiliation, and satisfaction with the teaching method was significantly related to an environment of task orientation.

1437. UPASANI, V.N., *Management Development Programme for School Administrators*, Ph.D.

Com., Poona U., 1980

The main objective of the research was to evolve a management development programme (MDP) for school administrators. With this major aim, the scope of work included task analysis, identification of competencies required and formulating the contents of MDP, its pattern, and instructional methodologies. The researcher also proposed to develop curriculum guide and illustrative training materials. A tryout was also undertaken.

The methodology adopted consisted of five major phases, viz., (i) assessment of training needs of school administrators, (ii) development of training programme involving formulation of the course contents, preparation of training materials and curriculum guide, (iii) tryout of the training programme, (iv) evaluation of the training programme and instructional methodologies, (v) finalization of the course contents on the basis of feedback from the participants involved in the tryout phase. For the tryout, the sample comprised 20 school administrators, who were exposed to the training programme for one week. The tools used to gather feedback included interviews, questionnaire and opinionnaire.

The major outcome of the developmental research study was a curriculum guide and training materials which could be used for training school administrators in the management of educational institutions. It was evident from the responses of the participants of the tryout programme that the MDP was quite interesting and useful. It was clearly expressed that (i) it was very necessary for school principals to possess knowledge about the topics included in the MDP, (ii) there was considerable change in the approach of the participants towards tackling case studies after getting exposed to the MDP, and (iii) the useful instructional methodology could be a combination of lectures, case studies and group discussions. The first contact session of the course was to be preceded by a study of the curriculum guide and followed by practical work. The course was expected to be useful not only to school principals but also to other educational administrators.

- 1438.** USHA, R., *A Study of the Problems related to Education of the Physically Disabled Children in Karnataka*, Institute for Social and Economic Change, Bangalore, 1981

The major objectives of the investigation were: (i) to survey the special institutions catering to the educational

needs of the physically disabled children in Karnataka, (ii) to study the problems faced by the heads of the special institutions, the teachers teaching the disabled children, the students studying in the special institutions and the welfare associations offering educational courses for the disabled children, and (iii) to suggest guidelines, in the light of the problems identified, to develop a suitable programme for the disabled children in Karnataka.

The sample included 15 heads of the institutions, 52 teachers (50 per cent of the total), 470 children, 40 parents, 9 welfare associations and 6 experts. Questionnaires and interview schedules were the tools used for data collection.

The major findings of the investigation were: (i) Out of the fifteen institutions, two were managed by the Union Government and eight by the State Government; four were private aided and one private unaided. (ii) These institutions conducted courses from pre-primary to secondary levels. Two institutions ran only pre-primary classes, five only lower primary classes, five Classes I to VII and three Classes I to X. (iii) Fifty per cent of the teachers were handicapped. (iv) The subjects taught in these institutions were the usual subjects meant for normal non-handicapped children. (v) In the case of blind children, the medium was Bharati Braille. Two institutions taught through English medium, others through Kannada medium. (vi) During examinations, provisions were made for these services of readers for the blind and scribes for the orthopaedically handicapped. (vii) In two institutions, an integrated system of education was being tried with the combination of normal and disabled children. (viii) The undefined nature of the scope for special education, the undefined nature of special arrangements, equipment and other facilities for physically disabled children were major problems. The special institutions were under the administrative control of two State departments, namely, the Department of Public Instruction and the Department of Women and Children's Welfare. (ix) The services of specialists like psychiatrists and occupational and physical therapists were not available. (x) Lack of proper curriculum, non-availability of books in Braille, absence of a printing press for printing Braille books and inadequate training of teachers were other problems. (xi) Other problems in the area of administration, were lack of coordination between different departments, lack of parental education, etc.

- *1439.** VARSHNEY, N.C., *The Organizational Climate of Different Types of Schools and Reactions to Frustrating School Situations among Adolescent*

Boys Studying in These Schools, Ph.D. Edu., Raj. U., 1979

The main objectives of the study were: (i) to identify the organizational climate of different types of schools, (ii) to find out the students' reactions to frustrating school situations in the different types of school organizational climate, (iii) to compare these school organizational climates with each other in regard to reactions to frustration, (iv) to establish the relationship between different reactions to frustration, (v) to compare the reactions to frustration in different types of schools at different age levels, (vi) to find out the reactions to frustrating school situation in different types of schools, and (vii) to compare the different types of schools with one another with regard to reactions to frustrating situations.

The sample consisted of 639 principals and teachers and 832 students selected randomly from 47 schools from Delhi. The students selected were from Classes IX, X and XI and were in the age group 13+ to 17+. The tools used for data collection were Halpin and Croft's Organizational Climate Description Questionnaire and Sharma's School Situations Reaction Frustration Test. Data were collected at two times. First it was collected from the teachers, and then, after identification of the school climate, it was collected from the students of the selected schools. Mean, standard deviation, normalized standard scores, factor analysis, chi-square, analysis of variance, and graphs were used to analyse the data.

The study yielded the following findings: (i) There were six types of organizational climate in different types of schools in Delhi. These were: open, autonomous, controlled, familiar, paternal and closed. In all, 29.82 per cent schools had open climate, 14.91 per cent autonomous, 14.91 per cent controlled, 8.52 per cent familiar, 6.39 per cent paternal and 23.43 per cent closed. (ii) The dimensions of organizational climate, which tended to distinguish the schools among different climates were: aloofness, production emphasis, trust, consideration, disengagement, hindrance, *esprit* and intimacy. (iii) The autonomous type of school climate was better than the other climates for the adjustment of the students, followed by the familiar, controlled, paternal, closed and open. The reactions to frustration, namely, obstacle-dominance, extraggression, introgression, introspective, impeditive, extrapunitive and super ego variant E, tended to differentiate significantly among these schools climate types. (iv) The different school climate types had different effects upon the students, different reactions to frustrating school situations. Obstacle-

dominance occasioning the frustration, in their responses as a reaction to frustration was found highest in open climate which was followed by paternal, closed, autonomous, familiar and controlled climates. Extraggression or the tendency of the students to turn the aggression outwardly on to the environment was highest in the familiar type of school climate, followed by the open, autonomous, paternal, controlled and closed climates. (v) Introgression or the students' tendency of turning the aggression inwardly upon themselves was highest in the closed climate, followed by the controlled, paternal, autonomous, open and familiar climates. Intrepidity was highest in the closed climate, followed by the open, familiar, controlled, paternal and autonomous climates. Impeditive tendency was highest in the open climate, followed by the autonomous, paternal, closed, familiar and controlled. Extrapunitive tendency was highest in the familiar climate, followed by the open, autonomous, controlled, closed and paternal climates. Super ego variant was highest in the familiar climate, followed by the autonomous, controlled, paternal, open and closed climates. (vi) The aloofness was positively ($r = 0.59$) related to group conformity rating or the students' adjustment in the school situations. Trust was positively related to extraggression ($r = 0.45$) and negatively related to introgression ($r = -0.5$). Consideration was also positively related to extraggression ($r = 0.52$) and negatively related to ($r = 0.45$) introgression and to introgressive tendency ($r = -0.44$). Hindrance was positively related ($r = 0.74$) to ego-defence, introgression ($r = 0.68$) and introgressive score ($r = 0.60$). *Esprit* was negatively related to introgression ($r = -0.45$). (vii) The government school students were higher on E than the Khalsa School students. The aided schools were higher on ego-defence than the Khalsa School.

1440. VARSHNEYA, P.K., *A Study of Relationship between Organizational Environment and Teacher Effectiveness*, Ph.D. Edu., BHU, 1981

The major objectives of the study were: (i) to find out the organizational environment of the selected high schools of Varanasi, (ii) to find out the differences in the organizational environment of girls' and boys' schools, (iii) to find out the relationship between organizational environment and the components of the product criteria of the teacher's effectiveness, namely, the pupil's attitude towards the teacher, the pupil's attitude towards the school, the pupil's personal values and scholastic

achievement, (iv) to find out the relationship between organizational environment and the composite teacher's effectiveness, and (v) to find out the relationship between each dimension of organizational environment and the composite teacher's effectiveness. The hypotheses formulated were: (i) There was no significant difference between organizational environment of high schools for boys and girls. (ii) Different organizational environments did not produce significant difference in pupils' attitude towards the teacher and the school and their personal values and scholastic achievement. (iii) There was no significant relationship between the various dimensions of organizational environment and the composite teacher's effectiveness.

The sample comprised twenty-five boys' and twenty-five girls' schools randomly selected out of one hundred and seventy schools of Varanasi district. From each school ten teachers and twenty students were randomly selected for collecting data. The tools used for data collection were Organizational Climate Description Questionnaire developed by Halpin and Croft and adapted in Hindi by the investigator, a scale to measure the attitude of students towards teachers, a scale to measure the attitude of students towards the school, a questionnaire to measure the personal values of students and a scholastic achievement proforma. The statistical techniques used were analysis of variance, product moment coefficient of correlation and multiple regression analysis.

The major findings of the study were: (i) The percentage of the schools coming under the closed range was slightly higher than that of the open climate range. About ten out of fifty schools had autonomous climate, nine controlled climate, three familiar climate and five paternal climate. (ii) There was no sex difference as far as the school climates were concerned. (iii) Open school environment produced very favourable attitude towards the teacher, whereas the familiar environment produced the least favourable attitude towards the teacher. (iv) Different organizational environments did not produce significant difference in the pupils' attitude towards their school but they produced significant difference in the pupils' scholastic achievement. The scholastic achievement was the maximum where the environment was open and familiar and it was the least where the environment was controlled and paternal. Closed and autonomous environments were moderately and equally suitable for scholastic achievement. (v) Out of the ten personal values, only social values differed significantly in the six different organizational environments. (vi) Open, autonomous and controlled environments were more favourable for the teacher's effectiveness than the other

categories of environments. (vii) Organizational environment was significantly and positively related to the pupils' attitude towards the teachers. (viii) Organizational environment was significantly and positively related to scholastic achievement but its relationship with the pupils' attitude towards the school was not significant. However, it was positively and significantly related to social environment and composite teacher's effectiveness.

1441. VASHIST, B.K., *A Programming Model of Educational Planning for Haryana*, Ph.D. Eco., Kur. U., 1980

The main objectives of the study were to find out: (i) an efficient allocation of given resources, measured in terms of budgetary resources and student-time valued at its opportunity cost, among different types of education, and (ii) the claim of the educational sector on the resources of the society.

An answer to these questions was sought in terms of a programming model. In view of the inter-temporal nature of inter-educational student flows, a ten-year planning period from 1971 through 1980 was conceived. The variables in the objective function referred to admission levels in different types of education and the coefficients associated with each one of them to net benefits of education. The net benefit coefficients were estimated from age-education-earning data obtained from secondary sources. Adjustments were made in order to account for the impact of economic growth, incidence of educated unemployment, wastage in education and differences in labour participation rates of males and females on earning. Only the direct benefits of education to individuals were considered. Using parametric programming, variations were made in the amount of budgetary resources available for use in all types of education taken together so as to determine the effect of each variation on the optimal pattern of enrolments and resources used and the value of objective functioning. The optimal solutions computed for each year of planning period related to levels of admissions and budgetary resource use, levels of total social expenditure on education, value of the objective function, number of new student places of different types required to be provided and number of trained teachers with different qualifications required at the school stage of education.

It was observed: (i) The pattern of allocation obtaining prior to the inception of the planning period was sub-optimal and created an educational pyramid, relatively

over-expanded at the top and under-expanded at the bottom. (ii) Education had a strong claim on the resources of the society; there was considerable scope for the productive use of additional resources in educational sector. Allocations to educational sector could be gainfully raised from little over 2 per cent to 3.25 per cent. (iii) Given factor prices and production technologies, the resources at any time were determined by the enrolment decisions implemented in the past. Even at the end of the ten-year planning period (i.e., 1980) the educational sector in Haryana was not expected to be in a position to absorb more than 3.25 per cent of state income. (iv) The assumption of infinite elasticity of substitution lost its tenability if it was stretched to justify sudden and large changes in the existing facilities of education and extended the planning horizon over the unduly long period. Therefore, in addition to keeping enrolment levels during any year within manageable limits, it was essential that educational planning be treated as a continuous process rather than an once-and-for-all exercise so that biases in the educated labour market did not accumulate over time.

1442. VATHSALA, S., *Potential Drop-outs at Middle School Level*, Ph.D. Edu., Madras U., 1981

The main objectives of the study were: (i) to identify the causes for drop-out and to determine their relative importance, (ii) to examine the inter-relationship among the various factor related to drop-out, and (iii) to evolve an instrument to identify potential drop-outs.

Thirty drop-outs and thirty stay-ins were interviewed and data were collected through a semi-structured interview schedule. Through discriminant function analysis, the factors that discriminated the drop-outs from the stay-ins were determined and were used in the identification instrument. Twenty variates from four areas, personal, family, peer group and school, were selected and their association with potential drop-outs was studied.

The Socio-economic Status Scale (Pareek and Trivedi), School Adjustment Inventory (Sarojini), Self Acceptance Scale (Kakkar), Junior Eysenck Personality Inventory and Achievement Motivation Inventory (Mehta) were the tools used in the study. The investigator developed semi-structured interview schedules, identification instrument and a semantic differential scale to measure the attitude towards school teachers and peers. Apart from measures of central tendency and dispersion, chi-square, t-test, regression analysis, discrim-

inant function analysis, factor analysis, Kolmogorov-Smirnov test, analysis of variance and path analysis were used for data analysis. Cluster sampling was the technique adopted for selecting the sample. As many as, 1907 pupils were selected, of whom 197 were identified as potential drop-outs.

The major findings of the study were: (i) Potential drop-outs hailed from poor, illiterate wage-earner families. (ii) Poor achievement in reading and number abilities and failures were associated with potential drop-outs. (iii) Potential drop-out girls were from large families. (iv) Potential drop-outs were neurotics, had low self-acceptance and achievement motivation. (v) As potential drop-outs, there was no significant difference between boys and girls. (vi) Potential drop-outs were more in rural schools than in urban schools. (vii) The parents of potential drop-outs were indifferent to education. (viii) Potential drop-outs liked the schools. (ix) To identify drop-outs, the twelve variables on factor analysis presented four factors, scholastic achievement, educational, social and economic status of parents, teacher-peer influence and stagnation.

1443. VEDANAYAGAM, E.G., BALACHANDRAN, E.S. and others, *Evaluation of the Hostel Education Programme of the Church of South India Council for Child Care*, The Church of South India Council for Child Care, Bangalore, 1982

The major objectives of the study were: (i) to ascertain the degree of relationship between the aims of hostel education and the actual educational practice in hostels, (ii) to ascertain the effects of hostel education as complement and extension of formal school education, (iii) to examine the efficiency of hostel education with regard to the desired change of values, attitudes and behaviours in the case of former hostel children and the members of their families, and (iv) to examine the extent to which educational activities of hostel students point to the characteristics and tasks of wardens.

The sample included 414 students selected from sixty hostels, of which thirty-six were big hostels and twenty-four were small; of these, twenty-seven were boys' hostels, twenty-five girls' hostels and eight mixed hostels. The sample had 220 boys and 194 girls selected on a random basis. The sample also included 110 parents, 119 former hostel students, 63 wardens and 387 teachers. The tools used were questionnaires, interview schedules, observation proforma and Rao School Attitude Inven-

tory, Self Acceptance Inventory, Self Concept Scale, a Socio-economic Status Scale, Teacher Attitude Inventory, Primary School Pupils' Personality Traits Rating Scale and Kundu's Neurotic Personality Inventory. Descriptive statistics, correlation matrix and chi-square test were the statistical devices used for data analysis and hypothesis testing.

The major findings of the study were: (i) The family background of the hostel students was poor whereas social climate and the living conditions of the families of the former hostel students were better. (ii) Food provided in the hostel was satisfactory but physical facilities needed improvement. (iii) Religious and social climates were good but the social activities were limited; the students had a positive attitude towards hostel life. (iv) More planning was needed for recreational and leisure-time activities of hostelites. (v) The students had a positive attitude towards their school. (vi) There was regular supervision and assistance provided to the hostel students by the staff. (vii) Involvement and participation of the students in religious, social and recreational activities was satisfactory. The students cherished realistic values and gave evidence of leadership qualities and obedience. The students who had spent a longer period in hostel had developed balanced personality. (viii) The students' participation in community life was not adequate. Their attitude towards their parents and foster-parents was positive. But the contact between the students and their foster-parents was far from satisfactory. (ix) The qualities, capabilities and behaviour of the hostel staff were good. (x) The parents had a high opinion about hostel education.

1444. VENKATESWARA RAO, H.V., *Long-term Educational Plan for India*, Ph.D. Eco., Osm. U., 1981

The main objective of the study was to present a framework of long-term educational plan appropriate for developing countries like India. It was a descriptive study utilizing the library research method. Relevant source materials were used to collect information for the study.

The major findings were presented descriptively. Integrated approach was devised as the long-term approach to educational planning in India. According to this approach, for any developing country an optimum strategy of economic development would be determined keeping in view its initial conditions (including resource endowment, thriftiness, proper sites of different classes,

institutional factors, etc.). Educational plan for a country under this approach would not be formulated in isolation but would have to be drawn in accordance with and as an integral part of the economic strategy determined as optimum. The integrated approach, suggested as an alternative to the existing approaches, ensured that requisite supply of manpower skills of right quality would be made available from the educational sector during each of the phases of the development strategy which the country selected as optimum. Manpower requirement and rate of return approaches did not take into consideration the nature of economic plan as to whether it was optimum or otherwise for a given country. They also did not specifically take into account the requirements of skills during the period of transition to the objective. As these two vital aspects of economic planning were clearly dealt with in the integrated approach, this study underlined the need for adoption of an integrated approach in our country.

A sample input-output model representing the main phase of Heaviesque strategy in which educational sector had been integrated with economic sector was constructed. This model could also be regarded as representing the main phase of an optimum long-term educational plan for India. The input-output table consisted of eight rows representing eight processes for producing eight different goods including different grades of human capital. The first three rows represented three stages of educational sector, namely, primary education stage, secondary education stage and university stage. In processes 4 and 5 consumption goods, (C) and the less mechanized but improved equipment (EC) used in the production of 'C' were produced respectively. The last three processes (6,7 and 8) represented the activities of producing iron and steel, metallurgical machinery and machine tools. Thus, in this input-output model educational sector was integrated with the rest of the economy or economic sector-comprising the consumption sector (processes 4 and 5) and heavy industry sector (processes 6,7 and 8). In the input-output table, each process specified the input requirements to produce a certain amount of goods per man-year.

1445. VERMA, P.L., *Role-conflict and the Corresponding Role-performance among Headmasters*, Ph.D. Edu., Raj. U., 1975

The major objectives of the study were: (i) to identify situations, which were perceived to be role-conflict situations by the headmasters while performing their institu-

tional roles, (ii) to find out the expectations actually held of the headmasters by teachers, students, parents and educational administrators and measure the extent of congruence and incongruence between the expectations actually held by counter-position incumbents and those perceived by the focal-position incumbents, (iii) to find out the relationship between the role-conflict experienced and the personalistic variables of the headmasters, (iv) to examine the relationship between the role-conflict and the institutional factors, and (v) to identify and examine the patterns of role-performance of the headmasters experiencing (a) high role-conflict, (b) low role-conflict, and (c) moderate role-conflict and the defined patterns of role-performance.

The tools used were: (i) Role-conflict instrument, (ii) Role-expectation instrument for teachers, and (iii) Role-expectation instrument for students, parents and administrators. The sample comprised 122 headmasters (10 per cent) selected at random from the secondary schools of Rajasthan. These headmasters were administered the Role-conflict instrument and on the basis of the scores, three groups of headmasters (five in each group) experiencing high, moderate and low role-conflict were identified for intensive study. Other samples comprised 150 parents, 150 teachers, 225 students and five educational administrators. The various statistical measures used included critical ratio, chi-square, percentile ranks, correlation coefficients, etc.

The major findings of the study were: (i) While the largest number (36.8 per cent) of role-conflict situations were found in the area of personnel administration followed by those in the areas of supervision, students' participation, students' privileges and obligations, admission of students and purchasing, the headmasters experienced highest worry in the situations related to purchasing, followed by admission of students, supervision, administration of teaching personnel, etc. Role-conflict was positively related to worry. (ii) The headmasters perceived expectations held by the teachers and the administrators more than those actually held by the parents and the students. On the whole, there was disagreement between the perceptions of the headmasters and the expectations actually held by any of the four groups, viz., students, teachers, parents and administrators. (iii) Role-conflict and population (sex) of the school were positively related but the role-conflict and other institutional factors (location of the school, level of school, management of school) were not significantly related. (iv) The older male headmasters experienced higher role-conflict than the younger ones and the headmistresses. No relationship existed between role-con-

flict and experience as headmaster in the school. (v) The headmasters experiencing high role-conflict performed their roles to seek compromise between conflicting expectations. Those experiencing low role-conflict tended to conform to one of the two conflicting expectations against the other rather than compromising between them or avoiding the same. The headmasters experiencing moderate role-conflict also conformed to one of the two conflicting expectations against the other rather than showing compromising behaviour or avoiding the situations.

1446. VINAITHEERTHAN, V., *A Study of Innovation Dissonance and Its Correlates in the Secondary Schools*, Ph.D. Edu., MSU, 1981

The major objectives of the study were: (i) to locate the relation of innovation dissonance between information stage and adoption stage, (ii) to find the relation of innovation dissonance between adoption stage and confirmation stage, and between confirmation stage and information stage, and (iii) to see how far innovation dissonance is affected by the school climate, characteristics of teachers, leadership behaviour, organizational climate and temperament of teachers.

The sample consisted of 100 principals and 800 teachers of 100 schools of Madras city. The tools used were Innovation Consonance-Dissonance Description Questionnaire, Leadership Behaviour Description Questionnaire, OCDQ, and Thurstone Temperament Schedule. Descriptive statistics and t-test were used for data analysis and hypothesis verification.

The major findings of the study were: (i) The age of teachers, sex, teaching experience and professional training influenced the state of dissonance of innovations. (ii) The teachers who did not change schools showed higher dissonant state than those who worked in several schools. (iii) Participating in in-service education, professional reading habits and temperament influenced the dissonant state. (iv) Professional satisfaction was related to impulsive and social traits and also consideration and disengagement. Leadership behaviour showed significant relationship with hindrance, disengagement and thrust. (v) Controlled climate significantly contributed to teaching-learning process, school community relationship, attitude to innovation, change proneness and intimacy, disengagement, intimacy and aloofness. (vi) Open climate showed significant relationship with complexity, conservation, change-proneness, disengagement, hindrance and aloofness. (vii) Organi-

zational climate and leadership behaviour patterns of the principals were also responsible for the dissonant state.

- 1447.** VISHWAKARMA, R.L., *Implementation of Article 45 of Indian Constitution in Bundelkhand Area: Achievements and Problems*, Ph.D. Edu., Bundelkhand U., 1981

The study was designed to evaluate the progress of education at the primary and the junior high school levels from 1950 to 1975 in Bundelkhand region in Uttar Pradesh and to compare it with the progress of education in the country as a whole. It also aimed at finding out the reasons for the non-implementation of the directive principles of the Constitution as regards provision of free and compulsory primary education.

The investigation was conducted in Bundelkhand region of Uttar Pradesh consisting of five districts, namely, Jhansi, Banda, Jalaun, Hamirpur and Lalitpur. Data were collected from the government officers as regards the progress of education. Data regarding the reasons for non-implementation of the directive principles of the Constitution were collected with the help of a questionnaire. The questionnaires were administered to 500 primary school teachers of Bundelkhand region and the education officers concerned.

The main findings of the study were: (i) There was one primary school in a radius of seven kilometres in the region. (ii) On an average, there was one primary school for about 1,057 persons. (iii) On an average, there was one junior high school for 7,195 persons. (iv) Of the total number of primary schools, 17.5 per cent were girls' schools and the remaining were boys' schools. (v) Among the junior high schools 24.9 per cent were girls' schools and 75.1 per cent were boys'. (vi) Of the total enrolment of students at the primary level, 38.3 per cent were girls. (vii) At the junior high school stage only 7.68 per cent were girls and 92.32 per cent were boys. (viii) Approximately 73,000 children in the age group 6-11 and three lakhs in the age group 11-14 were not attending schools in the region. (ix) At the primary stage, the percentage of wastage in Classes I, II, III, IV and V were 26.6, 27.93, 23.2, 20.25 and 17.12, respectively. (x) At the junior high school level, the percentages of wastage in Classes VI, VII and VIII were 14.34, 10.36 and 10.83, respectively. (xi) The percentages of stagnation from Classes I to VIII ranged from 25 to 43. (xii) Only 34.0 per cent of the schools had suitable buildings. Fifty per cent had jute matting and furniture and 25 per cent had provi-

sions for games and sports. (xiii) About 86 per cent teachers and 85 per cent students attended the schools punctually. (xiv) Only 57 per cent teachers used suitable teaching aids. (xv) Seventy-five per cent headmasters felt that copying at the time of examinations was quite common. (xvi) Thirty-eight per cent teachers felt that the curriculum at the primary level was not suitable.

- 1448.** VYAS, V.C., *Factors Affecting Teacher Morale*, Ph.D. Edu., MSU, 1980

The major purpose of the study was to determine the factors affecting teachers' morale. The specific objectives were: to study the teachers' morale in relation to age, sex, marital status, teaching experience, and qualifications and to study teachers' morale in relation to their self-concept, attitude and adjustment.

The sample for the study comprised 56 secondary schools selected on a stratified random basis from the 215 secondary schools of Baroda district. The tools for data collection were: the Teacher Morale Inventory by Dekhtawala, the Personality Word List by Pratibha Deo, the MTAI and the Adjustment Inventory of Bell. The Teacher Morale Inventory had five components, namely, individual characteristics, behavioural characteristics, group spirit, attitude towards the job and community investment. The statistical techniques used for data analysis were: the use of descriptive statistics, t-test, product moment coefficient of correlation, factor analysis by principal components axis using varimax rotation for factor interpretation.

The major findings of the study were: (i) Teachers' morale was not related to their age or sex. (ii) The two components of morale, group spirit and attitude towards the teaching job, were significantly different for teachers in the age groups 21 to 25, 31 to 35 and 36 to 40. In the case of community involvement, two age groups, 41 to 45 and above 45, differed significantly. (iii) Marital status did not influence teachers' morale. (iv) The teachers with less teaching experience had a higher level of morale than those with more experience. (v) The postgraduate teachers had a significantly lower morale than the undergraduate. The trained graduates and the untrained postgraduates differed significantly in their morale. The trained postgraduate teachers had a higher morale than the untrained postgraduate teachers. (vi) Teachers' morale and teachers' self-concept had no relationship. (vii) teachers' attitude and teachers' morale were no significantly related. (viii) Teachers' adjustment and teachers' morale were significantly related.

(ix) The scores on the Teacher Morale Inventory, when factor analysed, yielded nine factors.

1449. WANKADIA, N.J., *Problems Pertaining to Secondary Schools Run by Some Industrial Concerns in Maharashtra and Gujarat States*, Ph.D. Edu., Bom.U., 1980

The main objectives of the investigation were: (i) to study whether the secondary schools run by industrial organizations were significantly different from the ordinary secondary schools, (ii) to study the problems faced by principals in running the secondary schools managed by the industrial management, (iii) to study the extent to which the equipment of the secondary schools was adequate, (iv) to study the problems of teachers teaching in these institutions and to know whether their problems were similar to those in ordinary schools, (v) to study the problems, both academic and administrative, faced by the management of the industrial concerns, and to suggest remedies for the same, (vi) to study the problems of parents, both industrial and non-industrial workers, in sending their wards to the secondary schools, and (vii) to make concrete suggestions as a result of the study for making the secondary schools run by industrial organizations model and ideal institutions.

The normative survey method was used, and the tools of research included questionnaires, interviews, checklist and rating scales. Five sets of questionnaires were used for collecting data from the students, principals, teachers, parents and management, after prevalidation and pretesting. The sample consisted of twelve schools run by industrial concerns, and six schools run by agencies other than industrial concerns. A cross-section of the students from Standards VIII to XII was selected, and the size of the total sample was 2,250. A sample of 380 teachers was selected by the random sampling technique. Similarly, a cross-section of parents was selected totalling 344. A separate questionnaire was given to the students, teachers, parents, principals and managements, and each of these groups was interviewed.

The main findings of the investigation were: (i) The schools run by industrial concerns were just ordinary secondary schools like the secondary schools run by trusts or societies. (ii) In the area of building and equipment these schools might be superior to the ordinary schools, when there was a management which was generous in spending for the employees' benefits. (iii) The schools run by industrial concerns had better qual-

ified and experienced staff. (iv) Fees charged by the schools run by industrial concerns were nominal. (v) The managements extended assistance to the employees for higher education of their wards. (vi) The teachers were better paid in the schools run by industrial concerns than their counterparts in the government/non-government schools. (vii) The principals of the schools run by industrial concerns complained of various pressures for promoting detained students, which, in turn, led to clashes with the labour unions. (viii) To avoid clashes with the employees' unions and other problems, several industrial concerns were thinking in terms of handing over the managements of their schools to private bodies like societies/trusts. (ix) While admitting students, these schools gave preference to the employees' children. (x) There was no significant difference in the achievements of the students studying in both the types of schools as also in the problems of organization and administration faced by the managements.

1450. YELI, R.S., *A Critical Study of Pre-primary Education in Karnataka*, Ph.D. Edu., Kar.U., 1979

The major objectives of the study were to enquire into (i) the type of pre-primary schools and their location in terms of area, (ii) the agencies managing the pre-primary schools, of residential or non-residential nature, and the working shift, (iii) the existing conditions of the physical plant of pre-primary school building, playground, garden, fencing, (iv) provision for equipment — furniture for children and teachers, play equipment for children's indoor and outdoor activities, audio-visual aids, parents' assistance in respect of equipment, library for teachers and for children, (v) the types of activities offered — indoor and outdoor activities, outings, environmental development activities and teaching of reading and writing, (vi) facilities provided for children—medical care, first-aid facility, conveyance for children, midday meal, etc., (vii) pupil-teacher ratio, punctuality among children, checking of undesirable behaviour among children, (viii) parent-teacher association and its meets, and (ix) the existing financial condition of the pre-primary schools—expenditure and sources of income.

On the basis of random sampling, 1,000 pre-primary schools were selected from a total of 1,342 and relevant data were obtained by administering a questionnaire, developed by the investigator, to the pre-primary school teachers. The statistical techniques used were chi-square test, t-test and analysis of variance.

The important findings of the study were: (i) The nursery type schools dominated the entire fabric of pre-primary schools in Karnataka. (ii) The ratio of the pre-primary schools distributed over the different areas, rural, urban, semi-urban as hill station, was 21:6:3:1, respectively. (iii) Non-residential schools were preferred. (iv) The private agencies played a dominant role in managing the pre-primary schools and the participation of the government in managing the pre-primary schools was meagre. (v) Most of the pre-primary schools did not have their own buildings, the situation was even more acute in the rural schools and those in hill stations; almost all the schools did not possess playground, garden and modern amenities necessary for any pre-primary school. (vi) Many schools did not have proper facilities for indoor activities and library facilities for teachers. (vii) The schools in the urban areas attached maximum importance to taking children on visits and excursions; the rural schools and those in hill stations attached con-

siderable importance to providing environmental development activities like *bhajans*, nursery rhymes and celebration of festivals; only 5 per cent pre-primary schools included teaching of reading and writing in the activities. Kannada was used as the medium of instruction in most of the pre-primary schools. (viii) Arrangements to convey children to schools were available in urban and semi-urban areas. Health conditions of children, punctuality and the availability of first-aid box were more in the schools of semi-urban and urban areas; midday meals were provided for children more in the schools in hill stations and in the rural area schools while the provision of milk existed in the schools in hill station and in the urban schools. (ix) The pupil-teacher ratio in the pre-primary schools was approximately 46:1; only 35 per cent schools sent progress reports to parents. (x) The average percentage of the schools having parent-teacher association was not very high.