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Research in Educational Management

A TREND REPORT

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BACKDROP

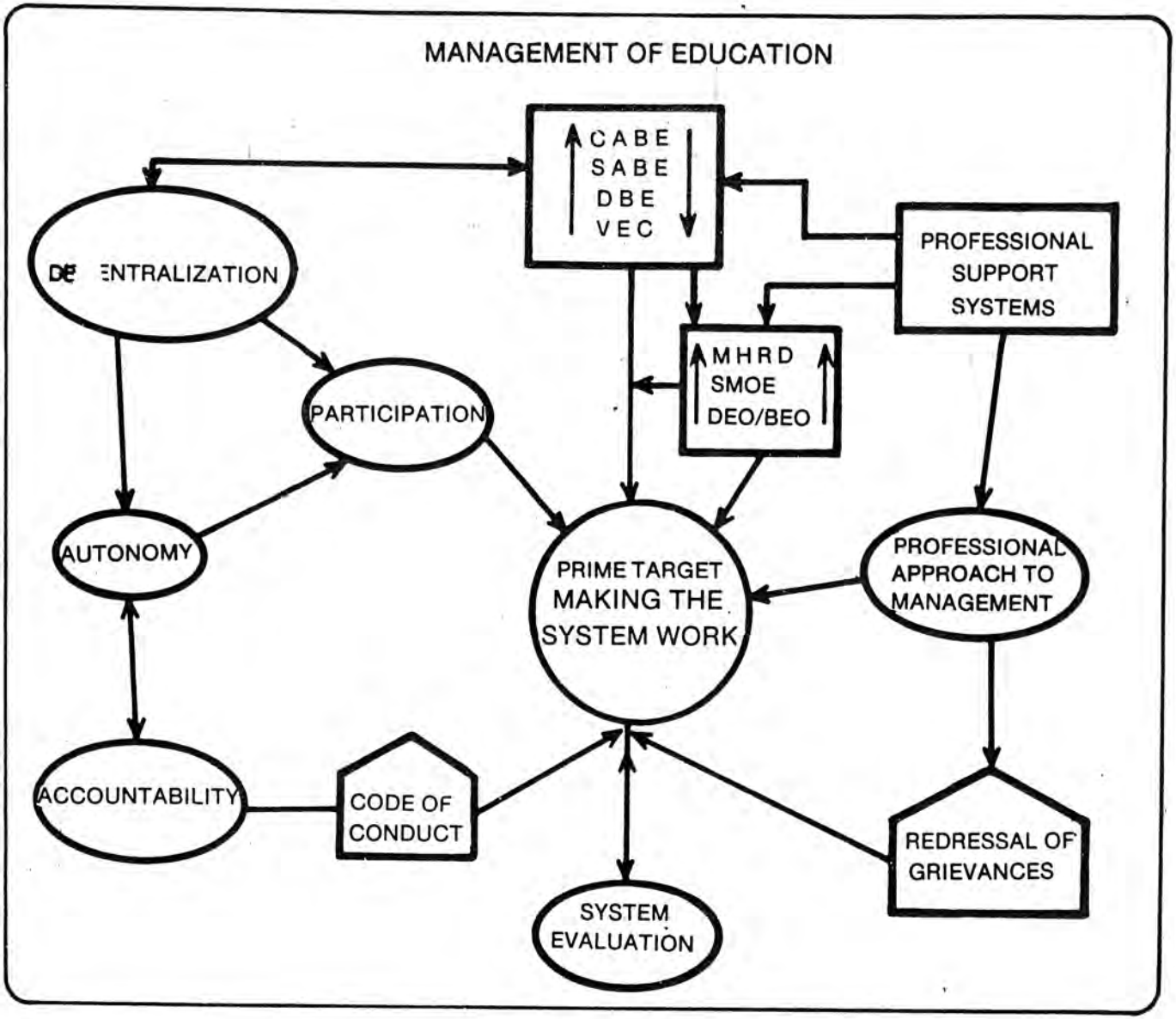
Research on problems of education and particularly those related to its management, started as early as the 1940s. During the last forty years or so, there have been three major bench-mark surveys of research on problems of educational management (Buch, 1974, 1979 & 1986). In each of these survey reports, experts reviewed the trend of research in the field of management (Desai and Rao 1974, Desai and Parmaji 1979, and Valecha and Abraham 1986). As the fourth survey trend analysis is taken up, one is confronted with the question regarding the basic purpose of such bench-mark surveys and analyses of trends of research. The previous reviewers provided detailed analyses of the researches done and also made recommendations in the light of their own expertise and experience, concerning desirable directions for future research. It is, however, not evident from the analyses of subsequent reviews that such trend analyses and projection of research needs influenced the choice of subjects by later educational researchers.

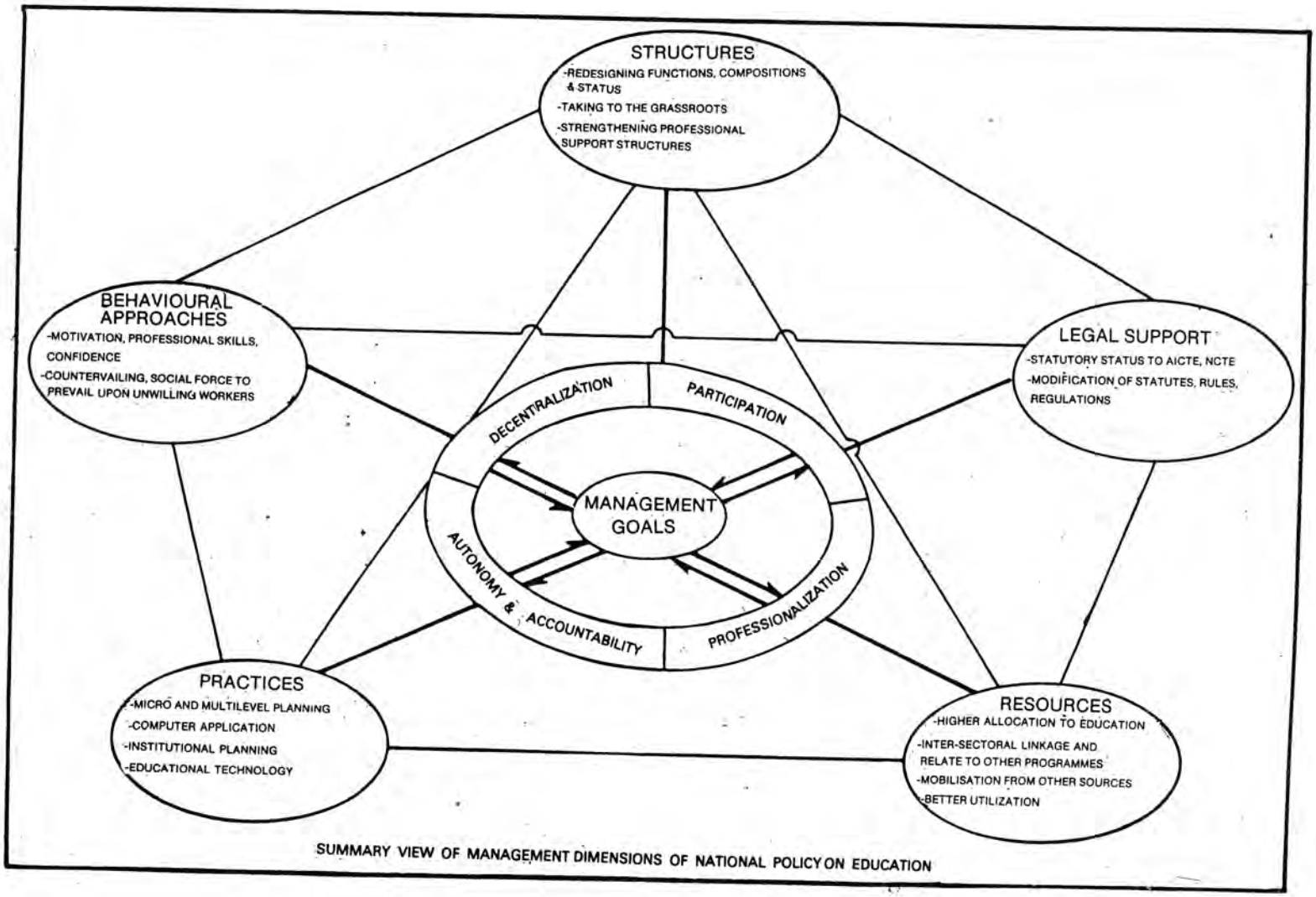
Educational research on management, thus, seems also to be caught up in the syndrome of indifferences and mutual exclusion. It is probably not yet seen as a professional activity. Educational management is still seen as basically an off-shoot of pedagogical skills at the school level and an overflow of content specialization at the higher education level. The situation is not different when one moves from institutional management to the management of areas and larger systems like districts, states and universities. The District Education Officers or the Joint Directors or the University Vice Chancellors or Registrars, are selected on the basis of their specialization either in the field of pedagogy or in the field of subject content. Education and training on management is not seen as a prerequisite for managerial positions and activities. Even when it comes to Directors of Education in the states and Deputy Secretaries onwards at the national level, such posts are offered to IAS cadre who have a record turnover rate, moving from labour to rural development to finance and what not. Educational management is, thus, not seen as a specialized area of activity.

Management education *per se* has matured in a significant way in this country with the establishment of the four Indian Institutes of Management, management departments in more than fifty universities, five IITs and a large number of specialized institutes in this field. Nevertheless, education is usually not an area of operation in such management institutes. In other words, the programmes and experiences would indicate that the total thrust of management education in this country has gone into business and industrial organisations.

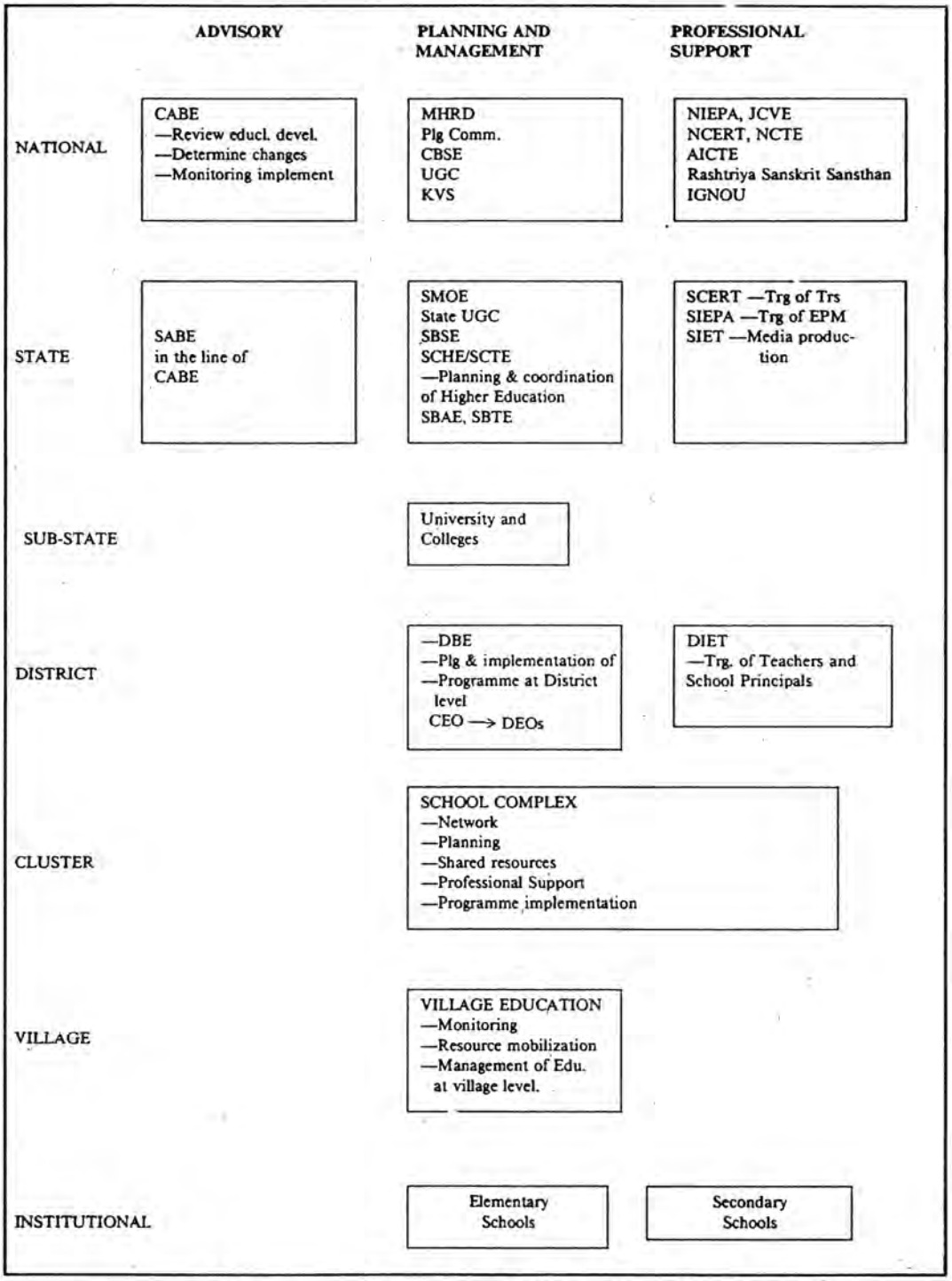
It would be evident from the above analysis that professional management and education have more or less remained mutually exclusive, and a reflection of this situation is seen in research on educational management.

The *Challenge of Education* and the *National Policy on Education: 1986 (NPE)* brought this mutual exclusion into focus and emphasized the need for professionalization of educational management. It is, in


MANAGEMENT OF EDUCATION
CABE
SABE
DBE
VEC
PROFESSIONAL SUPPORT SYSTEMS
DE ENTRALIZATION
MHRD
SMOE
DEO/BEO
PARTICIPATION
AUTONOMY
PRIME TARGET MAKING THE SYSTEM WORK
PROFESSIONAL APPROACH TO MANAGEMENT
ACCOUNTABILITY
CODE OF CONDUCT
REDRESSAL OF GRIEVANCES
SYSTEM EVALUATION



SUMMARY VIEW OF MANAGEMENT DIMENSIONS OF NATIONAL POLICY ON EDUCATION



Management Structures in Education (POA)

MUKHOPADHYAY 1987

fact, important to note that in the context of the development of our country, the management of the service sector assumes not only importance but is central to the development process itself. Industrial development, development in the agricultural sector, and in the economy at large have provided new opportunities for improving the quality of life of the Indian people. Encashing the value of this opportunity would, however, depend not only on economic growth but also on distribution of wealth and proper management of the service sector. Education, health, agriculture and social welfare are some of the critical areas from this angle. They have suffered from lack of professional management. This crisis has been boldly highlighted in the NPE and *Programme of Action (POA)* for education.

Hence a review and trend analysis of research on educational management, at this juncture, should be able to assist in understanding managerial problems, issues and solutions relevant to this service sector. A review with such a goal would warrant a conceptual framework which befits the educational structure, scenario and its problems in the Indian context. Educational management is taught in B.Ed and M.Ed. programmes and even to a large extent in the in-service programmes conducted by state and national-level institutes. Such programmes are based primarily on management theories which had their origin in western countries significantly alien to Indian culture. Secondly, even when such theories emerge out of Indian experience these are primarily in the industrial and business sectors which have a very specific profit-oriented goal compared to education, health and such other sectors. Given the circumstances, one is caught in a dilemma of choosing one of the three alternatives. The first would be to base the programme on generic management theory which could, however, be incapacitated because of the two-stage imports mentioned above. A second approach would be to classify the studies in a value-free manner as they appear. A third would be to look for an educational management paradigm. Scanning through the literature and all the 500 and odd studies conducted in India in this field, it would be evident that educational management as a conceptual framework is still evading us.

The Challenge of Education, National Policy on Education: 1986 and the subsequent document, Programme of Action reviewed the position regarding professional management in education. In fact, these documents need that success in implementation of the National Policy on Education would be a function of its management processes. In the chapters, 'Making the System Work' and 'Management of Education', substantive ideas on educational management have been presented. Various managerial concepts and recommended practices are strewn over various other chapters also. While one may not uncritically accept the whole policy as a framework of management, it does throw up significant conceptual elements that must be thought through to generate a framework. Further, the Policy on Education has been projected for a period of fifteen years. The structure and process of management of education is likely to be significantly influenced by the developments arising out of implementation of the National Policy on Education.

CONCEPTUAL FRAMEWORK

The conceptual framework of management in education is presented in a few diagrams (Figures 21.1, 2 & 3). The figures are self-explanatory and also reflect and accommodate the concerns and approaches spelt out in the policy document. Educational research in the field of management ought to provide data-based feedback for various processes and structures which operate in educational management.

It would be interesting at this stage to examine the earlier studies, vis-a-vis the conceptual framework presented in the diagrams. The classification of studies done by the expert reviewers in the first three Surveys of Research in Education is given in the Table 21.1. Table 21.2 presents a comprehensive content analysis of the abstracts provided in the first three surveys to identify the kind of major variables and problems studied in the field of management.

It would be evident from the superimposition of Tables 21.1 and 21.2 on Figures 21.1, 21.2 and 21.3 that a very large number of researches are in the areas of organizational processes or behavioural aspects and rest of the areas are almost blank. While Valecha and Abraham (1986) commended the emphasis on human aspects of management, one must not hesitate to bring home the point that largest number of researches on educational management come from Ph.D. scholars who have, as their background, a post-graduate degree in education. Thereby they are rather conditioned to studies on human-behaviour related problems. Further it would be evident that many such studies in the organizational behaviour area are influenced by the availability of some of the standard research instruments rather than perceived problems of management. For example, a large number of research scholars used LBDQ, OCDQ,

PTO and similar other questionnaires and adopted a multivariable correlational study, a few others used some kind of prediction by using regression or other forms of multivariate statistics. Such studies have contributed to some kind of an understanding of relationships among various variables vis-a-vis Indian managers. They, however, failed to sort out problems of Indian origin or generating theories of educational management close to Indian reality. Nor have they been able to throw light on organizational structures, management of resources, the managerial process, systems design, and so on.

A review of the next set of studies that emerged between 1983 and 1987 can be against the framework referred to above, and should examine whether there have been any changes in the pattern of studies and their understanding. Following the review, it would be necessary to locate the areas where research, profitably set more in the applied form, would be needed to provide practical support to the emergence of efficiency of educational management in the country. It would also be necessary to identify the people and the institutes that can and should contribute to this critical area of research in future.

During the last forty odd years, some 557 studies that are related to educational management have been completed. Seventy-five studies were reported in *A Survey of Research in Education* (Buch, 1974), 86 studies in *Second Survey of Research in Education* (Buch, 1979), and 222 studies in *Third Survey of Research in Education* (Buch, 1986) and some 172 studies are presented in this volume. There has been a decline in the number of studies on educational management during the last five years compared to the immediately preceding five years. Without further evidence, attaching any cause and effect relationship to the decline would be far-fetched and premature. To keep in tune with a comprehensive framework of educational management for reviewing the studies, it would be important to look back at the three figures given earlier. Extracting from the three figures, the studies can be classified into several areas belonging to two broad clusters:

Cluster I:
a. History and Status
b. Planning
c. Special Groups and Special Problems

Cluster II:
a. Goals of Management
b. Decentralization
c. Participation
d. Professionalization
e. Autonomy
f. Accountability
g. Structures
h. Behavioural Aspects
i. Resources
j. Practices
k. Legal Support
l. Personnel
m. Change
n. Monitoring and Evaluation

Table 21.1

CLASSIFICATION OF RESEARCH IN EDUCATIONAL MANAGEMENT

	Survey I	*Survey II*	*Survey III*
1.	Educational authority or agencies	Educational agencies	History and development of educational institutions
2.	Inspection and supervision	Inspection & supervision	Administration & organization of institutions.
3.	Different branches of education	Stages of education	Supervision and teaching methods
4.	Educational problems such as compulsory education, wastage & stagnation	Organization and planning	Wastage, stagnation and dropout
5.	Organisation and planning	Organizational climate & teacher morale	Psycho-social factors/aspects of teachers.
6.	Organisational behaviour	Policies and reforms, teachers problems and attitudes, etc.	Special institutions
7.	Educational policy, reforms, teacher's participation in school administration, teacher organizations, etc.		Studies on universal elem. education medium of instruction, effectiveness of N.C.C. programmes, manpower nutrition for pre-schoolers, etc.

Table 21.2

CONTENT ANALYSIS OF ABSTRACTS OF RESEARCH IN EDUCATIONAL MANAGEMENT

SURVEY I	*SURVEY II*	*SURVEY III*
Administration of schools	Administrative behaviour	Academic achievement
Agencies	Administrative climate	Administrative, coordination, Administrative process, aggregate approach
Attitudes of teachers	Attitude of teachers	Authenticity Authority of education Autonomous colleges
—	—	Bureaucracy Bureaucratic framework
Conditions of pre-primary education	Centre-state relations in education	Centralization
	Classroom climate	Change, corruption, change in the teacher-pupil ratio.
—	Communication	Character & morale, integrity, Cooperative, Classroom climate, Collegiate education
	—	Communication to the rural areas Communication climate
Dropouts	Dropouts	Dysfunctional
		Division of workload
—	—	Descriptive approach Dropout
Evaluative criteria for school inspection	Educational facilities	Economic conditions
Evaluation of different educational settings	Educational planning	Educational administration
Evaluation of govt. educational policies	Evaluation	Educational management
	Evaluation of teacher training	Educational status
		Expenditure of education
		Educational planning
		Educational structures
—		Evaluation of educational structures and management practices
	—	Educational facilities
		Educational agencies
		Educational forecast
		Effective communication
		Educational environment
		Environment of professional institutions
—	—	Environment of home
		Examination committees
—	—	Faculty admission policy
—	Historical evaluation of education	Human attitudes and values
	Human relations	—
Implementation	Inspection	Industry-polytechnic collaboration
	Institutional improvement	Implementation
		Innovation
—	—	Innovations in teaching methods
		Insufficient equipment
		Inefficient function
Job-satisfaction of teachers	Job mativation	—
Leadership role	Leadership behaviour	Leadership aspects of supervision
		Leadership training programmes
—	—	Lack of specialization, staff

		Legitimacy
	Manpower survey	Management evaluation
	Methods of supervision	Management development programme
—	Modern trends	Morale of teachers and students
	—	Models of administration
—	—	NCC training
—	Organizational climate	Organisational climate
		Operational functional
	—	Optimum economic strategy
Parent-teacher cooperation	Personality	Panel supervision
Primary school	Policies and reforms	Philosophy of administration
Problems of teachers	Professional organizations	Personal administration
Problems of women teachers	—	Policy and programme
		Psycho-social aspects of administrators
		Political linkage
		Productivity
		Poverty
		Poor educational background
—	—	Poor quality of teaching
		Polytechnic colleges
		Planning Commission
		Physically disabled
		Private schools
Role of different agencies	Role of Centre-State agencies	Rules
Role of principal	Role of school library	Regulations
		Role-performance
		Role conflict
—	—	Resource allocation
School improvement	School inspection	Socio-economic status
School organizations	Scholastic achievement	Social relationship
Secondary school	Selection procedures	Staff-concept
	Socio-psychological factors	Stagnation
	Stagnation	Students' behaviour
—	Surveys	Students' participation
		Students' attitude
		Special education
		Special facilities
		School education
—	—	School committees
		Scientific and representative sample
		Supervision
Teacher associations	Teacher associations	Teaching aids
	Teachers morale	Teacher unions
		Teaching methods
—	—	
—	—	Undernourishment
		Universal elementary education
Vocational education	—	Values
Wastage	Wastage	Wastage
		Work environment

Rigid classification of a particular study in any one area may not be possible and advisable, since a study, with its different dimensions, may contribute to more than one cagetory.

The larger number of research studies are on behavioural aspects, followed by history and status, and monitoring and evaluation of educational systems and structures respectively. Studies on some other categories are also significant in number. Out of 178 studies reported following this trend report, 92 are doctoral researches and 86 are research projects financed by government and other research institutes. Various levels of education, namely, primary, secondary, higher, technical and adult and non-formal, have been covered by these studies.

A majority of the studies adopted a survey approach; only a few adopted an in-depth case-study approach. Questionnaires, interview guides, and psychological tests were commonly used tools for data collection. Sampling was done by systematic randomization. Frequently used statistical techniques for data analysis were correlation coefficient, 't' test and analysis of variance.

Incidentally, there are no studies in the areas of goals of management, decentralization, professionalization and accountability—the processes on which the NPE not only emphasised but bestowed enormous confidence to enliven educational management. Unfortunately, current research is silent on these critical issues.

HISTORY AND STATUS

Historical studies depict the past of a particular system, and the development of that system over a period of time. On the other hand, status studies provide the systems' existing scenario. In this section an attempt is made to analyse the historical and status studies conducted in educational management during the period under review, primarily between 1983 and 1987.

As historical and status studies demand, the methodology used in these researches was mainly secondary data collection from documents and other available literature, and in few studies, survey with the help of questionnaires and interview schedules.

The studies in this area tend to affiliate to one of the following problems:

a. growth of education in a particular state,
b. pattern of administration in various states, and
c. growth and administrative pattern in USA, Thailand, Nepal

Table 21.3

SPATIO, TEMPORAL AND LEVELWISE COVERAGE OF STUDIES

Level of Education	*States covered*	*Other countries covered*	*Time frame of study*
All Levels (General Education)	Kerala		1840–1982
School	Assam		1947–1977
	Orissa		
	Jammu & Kashmir		British rule and Post-independence period respectively
	Andhra Pradesh		
	Bihar, Gujarat		
	Uttar Pradesh		
	Madhya Pradesh		
	Maharashtra	Thailand	
	Rajasthan	Nepal	
	Tamil Nadu		
	All India		
			1600–1920
Higher	West Bengal		1857–1957
	Assam		Since 1947
	Maharashtra		
	Uttar Pradesh	USA	
Technical	Assam		1948–1978
Adult Education		Thailand	

The study conducted by Singh (1985) traced the evolution of educational administration in India from 1600 to 1920. Educational development in Kerala from 1840 to 1983 has been analysed and reported in a meticulous work by Mathew (1987). Baruah (1983) made similar studies in Assam. He found that the growth of the number of institutions at secodary level was significant, but administration remained traditional and bureaucratic.

Another study on Assam revealed that the administrative machinery at elementary level was inadequate to cope with continuous expansion in relation to universalization (Das, 1979). Khadanga studied the situation in Orissa. Educational management in Orissa took shape during British rule but was not deeprooted, and the British policy of entrusting responsibility for primary education to local bodies did irremediable harm. This was the conclusion of Khadanga (1986). Another sta-

tus study revealed that educational administration in Orissa was ineffective due to lack of proper planning, and expansion of the system mainly on political considerations (Misra, 1984). A study recently conducted revealed more or less the same scenario of the administration of elementary education in Orissa (Mohanty, in progress).

The picture of educational administration in Tamil Nadu was not much different. Due to centralization of power and decision-making, leading to heavy paper work, key functions like planning, organization and coordination were ignored (Raj, 1975). Inadequate physical facilities and drinking water supply, teacher's absenteeism and student's concentration on extra-curricular rather than curricular activities was the scenario in some government and zilla parishad schools of Andhra Pradesh (Rebello, 1986). Sharma (1968) conducted a study on double-shift secondary schools of Rajasthan and concluded that it was not effective due to lack of proper planning and management. In addition to the studies in educational administration conducted by individual scholars, NIEPA (1979a to 1979i) conducted status studies on elementary education and its administration in Andhra Pradesh, Assam, Bihar, Uttar Pradesh, Jammu and Kashmir, Madhya Pradesh, Orissa, Rajasthan and West Bengal. These studies revealed the multifacted problems of elementary education and suggested possible solutions.

Another study probed in depth into Centre-state relations in education since independence (Rai, 1985). Phadke (1982) concluded that, except for minor modifications in the old system, there were no radical innovations in secondary education in Maharashtra in proportion to the growth of institutions and student enrolment. As far as growth of secondary education in Ahmedabad city is concerned, the trend is similar to that in Assam and Maharashtra. To suit the future needs of the city, replanning of secondary schools was needed (Modi, 1983).

Liankhuma (in progress) contributed a very useful study documenting development of women's education in Mizoram in slabs of five years over the last two centuries.

Dave (1980) conducted a study on basic education which revealed that basic education was not suitable to present-day needs. Reconsideration of its aims, objectives and implementation strategies was necessary.

Studies on university administration revealed rapid growth in all dimensions without proper planning and scientific management (Goswami, 1980 and Majumdar, 1979). University administration suffered due to centralized decision-making, unscientific allotment of work to various sections and little coordination and linkage among different groups (Sinha, 1979 and 1980).

Barooah (1986) studied the development of polytechnic education in Assam where it had not developed adequately to the needs. The lack of improvement was ascribed to poor administration and planning.

Pracha (1985) found in his study that administrative problems in physical education departments of colleges and universities were mainly due to lack of equipment and other facilities.

A comparative study of university administration in the USA and India revealed that the aims and objectives of the system are same in both countires . US universities have, however, participative management, collective responsibility and decentralized authority, whereas Indian universities have decentralized responsibility and centralized authority (Mahendiratha, 1982).

The administration of adult education in Thailand was systematic and integrated with general education and societal needs (Saenghirun, 1983). The expansion of education in Nepal was significant in recent years, however, in terms of expenditure on education, Nepal lagged behind most of the other under-developed countries (Siddiqui 1986).

NIEPA (1984) conducted a diagnostic study on management of education in India. This study was sponsored by UNESCO in a series of similar studies in several countries. The study incorporated a multi-sectoral diagnostic analysis of various aspects of management, namely, organizational structure, personnel management, resource management, monitoring and evaluation, etc. The study was carried out on the basis of data collected from several states of India.

Studies of this type, which basically document development over a period of time or a cross-section of the structure, are very useful from more than the historical angle. Proper analysis of the socio-economic processes that influenced development is a great source of learning in the process of the evolution of a theory and process of management of education in a given country.

EDUCATIONAL PLANNING

India adopted planned development as its approach to growth. With differential emphasis, multisectoral planning has been a consistent feature in all the five-year

plan periods. Education is one such sector of national planning. It has, however, been a weak partner. In the Planning Commission, education finds some place, but its position weakens as one goes to state planning boards and totally withers away in district development boards, with no representative from education. The multi-level, micro-level, long-term and perspective planning have remained distant dreams in education. Educational planning has remained almost an unexplored area. Despite educational surveys, comprehensive, a disaggregated database on education which can provide a sound platform for planning exercises is also missing, One also does not encounter experiments in education with various planning models as one does in other sectors.

Educational planning as a professional activity is, however, drawing attention in recent years in our country. The researches conducted in this area, though few, are indicative of emergence of a new venture. The coverage of these studies is given in Table 21.4.

Table 21.4
COVERAGE OF STUDIES

LEVEL	*No. of Studies*	State covered
Village	2	Karnataka, Maharashtra
Block	1	Karnataka
District	4	Gujarat, Assam, Maharashtra
State	2	Orissa, Karnataka
Regional	Nil	
All India	6	

Out of six all-India studies, one dealt with higher education of scheduled castes during 1964-77 (NIEPA, 1986). Another highlighted the relation between education and manpower planning (Akhtar, 1983), a third concentrated on the empirical situation regarding norms of teacher-pupil ratio at school level (Singhal, 1986), the fourth study examined the role of the Planning Commission in policy making and planning in India (Saraf and Taploo, 1986).

In another study Brahm Prakash (in progress) is projecting education in AD 2000. Reports on few states have been worked out whereby he has projected the number of students, teachers, schools and resources needed in future. The study provides important projections for future planning. A study on education and the labour market in India found a structural shift in employment from primary to secondary, and further to tertiary sectors. The study further revealed that the educational level of the workforce had improved (Varghese, 1986).

There were no regional studies, but two state-level studies were reported, one each from Karnataka and Orissa, on school education (Nagaraju, 1983, and Ray, 1983). In Maharashtra, two studies, separately conducted, examined the imbalance in vocatioal education and manpower planning at district level (Bapat,1985 and Bhale, 1985). A study conducted at district level in Assam traced the problems of education and employment of tea garden labourers (Dutta, 1985). Another district level study was conducted by Shah (1981) in Gujarat. She found a significant relation between independent variables, viz., proportion of irrigated land, size of the village, distance from the nearest town, proportion of agricultural workers and literacy rates in rural areas.

The block-level study examined the ways of planning and management of education within the Integrated Rural Development Programme (Seetharamu, 1984). The study revealed that the participants in rural development programmes tended to be a self-selected sample of generally better educated, better informed and economically better off sections of society. There was one study at village level in Karnataka on the impact of education on rural households. The study was an attempt to answer questions like: Does the educational level influence adoption of new technologies and if so, is there a critical level of education that influences adoption? Does educational level influence diversification of economic activities? In this study, the impact of education on agricultural modernization demographic behaviour and quality of life were studied on 30,000 rural households, and showed positive results (Raza and Ramachandran, 1986). Another study conducted in Pune metropolitan region examined the relation between education and training and industrial productivity in the engineering industry (Pinto, 1985).

Akhtar (1983) found that education increased the rate of human capital formation and stimulated economic growth. In spite of the overall increase in the enrolment of scheduled castes in higher education, they lagged behind other communities at every stage of education (NIEPA, 1986).

Singhal's (1986) study revealed wide variation (1:2 to 1:55) among the states and Union territories in terms of teacher–pupil ratio prescribed by the different states. The study found wide gaps between the norms prescribed and the actual position. Planning and management of education is becoming increasingly complex

and critical with the tremendous increase in enrolment at all levels of education (Ray, 1983). Educational planning and management need a professional cadre, and hence establishing an Indian Educational Service becomes essential (Saraf and Taploo, 1986).

The studies reviewed above provide some improtant pointers towards significant research on educational planning. As of today, the research is too meagre to generate any substantive learning regarding the process of planning of education at macro and micro areas and institutions. Future projections, school mapping, decentralized and multilevel planning emanating out of NPE directives, provide new opportunities for evaluative follow-up and even experimental research on educational planning at various levels and comparative studies across the levels, districts and states.

SPECIAL GROUPS AND SPECIAL PROBLEMS

Two types of studies are classified under two categories. One group of studies on SC/ST, women and other weaker sections. The second group of studies analysed some of the perennial problems of education, like wastage, stagnation, dropouts, etc.

Special Groups

The socio-economic and cultural aspects of SC/ST and women as special educational groups have been studied in sociology, anthropology and such other subjects. However, issues related to education of these groups also received attention of educational researchers in the recent past and this interest is gradually gaining momentum though studies are few even today.

Studies conducted in different states on special groups are enumerated in Table 21.5.

Table 21.5

SPECIAL GROUPS AND STATEWISE DISTRIBUTION

Groups	No. of Studies	Ststes covered
Scheduled castes	4	Delhi, Maharashtra and one all-India study
Scheduled tribes	3	Kerala, Andhra Pradesh, Bihar, Gujarat, Madhya Pradesh, and Maharashtra
Women	3	Uttar Pradesh, and two all-India studies

The spatial and groupwise coverage shows that studies are few in number and do not cover all parts of the country.

The survey method was extensively used in these studies. Data were collected from both primary and secondary sources with questionnaires, interview schedules and attitude scales. Location quotient and coefficient of equality were used to analyse data.

Incentives like the book bank scheme post-matric scholarships help the SC/ST students to pursue higher and professional education. However, inadequacies in management of these schemes create problems to students (NIEPA, 1986). This study revealed various dimensions of management of scholarships related to some critical issues like adequacy of scholarship amount, expenditure pattern of students and delays in payment. Gogate's (1985) study found that cumbersome procedures also led to delays in getting scholarships by SC/ST students.

The study conducted by Premi (1982) on ITIs examined the utilization of ITI facilities by SC and ST students. She found that SCs utilized the facilities better than STs. The study revealed that self-employment rates were very low among all the trainees.

A study conducted on Ashram Schools found that the schools had been able to meet the educational needs of tribal children only to the limited extent of 4 per cent of the age-group 6-11 years. Due to separate schools for tribal children, integration with non-tribal population was not taking place. The study suggests, in this connection, admission of some non-tribal children in these schools to develop integration NIEPA, 1986).

Joshi's (1985) study revealed that the majority of the tribes in Kerala were backward in socio-economic and educational aspcets. Nearly 90 per cent of tribal families belonged to the lowest strata of the socio-economic scale.

Leelakumari (1984) reported that girls' enrolment in Uttar Pradesh was 3.9 per cent in 1927. Since then, girls education had made rapid strides in the state.

Premi (1984) found that Jaisalmer district in Rajasthan with 1.67 per cent female literacy was lowest among the districts in India in terms of rate of literacy. The study also found that the enrolment ratio of 6.67 for girls at primary stage in Jalore district of Rajasthan was the lowest in the whole of India.

Another study examined the condensed courses offered by vocational training centres for adult women and found that these courses did not help to a very large extent in getting employment. The study suggested modification of the courses to suit present-day needs (Premi and Nuna, 1987).

Future studies on these special educational groups need to concentrate on critical issues like socio-economic, psychological and cultural factors obstructing the advancement of their education, the process of learning among tribals, management of ashram schools and colleges with concentration of SC/ST.

Special Problems

Education has been facing some special problems like wastage, stagnation and dropouts at different levels. The reasons for these problems have been studied by many researchers in the past. It is worth having a glance at the studies on these problems conducted in the recent past. Of the nine studies analysed, four dealt with the problem of wastage in school education in Assam, four examined the problem of wastage at school level in Bihar, Rajasthan and Uttar Pradesh, and one study attempted to trace the incidence of dropout and maladjustment among students in relation to creativity and social structure of the school (Rather). No study was conducted in southern states recently on these problems.

Wastage and stagnation were higher in rural areas than in urban and suburban areas , and it was higher at the primary stage than other stages (Barua, 1971 and Das 1969, 1975). The training of teachers had no impact on reducing wastage and stagnation (Das, 1979). The percentage of dropouts was high among girls at primary level in Rajasthan (Sharma, 1981). Gangopadhyay (1985) found that there were more dropouts among boys and more repeaters among girls. The study further revealed the main cause for wastage and stagnation was the dropouts and repeaters' apathy to English and a dislike for mathematics, lack of educational guidance and poor study habits. The wastage had a relation with student intelligence, socio-economic status, parents' education and size of the family (Singh, 1984). Another crucial problem is absenteeism mainly in government schools where the percentage was higher. Absenteeism is relaied to poor family background and domestic life (Sunder, 1984).

The studies concentrated on empirical situations rather than on the causes and factors for stagnation except Rather's study which found a positive relation between dropout and the sociometric status of the child in the classroom. Future studies, emphasizing these dimensions at micro-level would be useful to find out solutions to some of the problems.

The NPE (1986) stressed the need for application of modern management science, including laying down specific goals of management, decentralization, participation, professionalization, autonomy and accountability. There were not many earlier studies in these areas so there is little to learn from past experience—which is a handicap. The situation warrants immediate undertaking of research in these areas.

PARTICIPATION

Participative management is increasingly gaining importance, whether at macro, meso and micro levels. There were no systematic studies conducted in this area.

A block-level study conducted on Integrated Rural Development Projects revealed that lack of grassroots level participation in these projects resulted in poor performance (Seetharamu,1984).

AUTONOMY

Autonomy is another aspect dealt with seriously in the NPE, 1986. Not much research was done in this area beyond the study conducted on autonomous colleges in Tamil Nadu (NIEPA, 1986). The major findings of the study are: 20 colleges were given autonomy, out of which 16 were located in Tamil Nadu. The study found that the colleges are successful to a large extent in implementing the innovation. The courses have been restructured to suit societal needs. Teachers and community participation in the implementation led to success and solved many critical issues without much difficulty (NIEPA, 1986).

Another study also conducted in Tamil Nadu concentrated on one particular autonomous college and revealed more or less the same points as just mentioned. The study further observed that prior planning, teachers' participation in every phase of innovation, and mobilization of resources from other systems were key aspects of the success of the innovation in the college (Pillai, 1987).

STRUCTURES

The role of certain structures in a given system like the Ministry of Human Resource Development, UGC, etc. and the organizational structure of an institution are the

two broad areas of research. Out of 12 studies analysed in this category, one traced the organizational structure and role of the central Ministry of Education, seven studies were related to higher education, three were on school education and one dealt with Muslim educational organizations in Karnataka. It may be noted here that there is no study on organisational structures at state level. The studies in this category covered the states of Andhra Pradesh, Assam, Bihar, Kerala, Karnataka, Maharashtra and Punjab.

The organizational structure of the Ministry of Education of the Government of India was studied in a historical perspective, relating it to its functional components (Mathew, 1984).

Studies on structures for higher education have been on the role of the UGC and organizational and administrative structures of universities and colleges. The organizational pattern of libraries has also been an area of study. Sharma (1981) concluded that the University Grants Commission did not use its powers of inspection and stoppage of grants, with the result that maintenance of standards has taken a back seat. The study further revealed that the other drawbacks of the UGC were lack of evaluation and assessment of programmes and their impact, absence of mechanisms and methods (to some extent due to absence of powers) to see recommendations of various expert committees translated into actions. There mechanism for coordination with other bodies concerned with overall national planning and with other sectors of educational research was inadequate. The Federation of University (Service) Teachers' Association of Bihar (FUSTAB), in spite of various limitations, has been working for betterment of service conditions of teachers and qualitative improvement of higher education (Verma, 1985). On the other side, the age-old academic departmental structure was not found suitable for the changing objectives of the university (Portia, 1979). The respondents of Portia's study were in agreement concerning disjunction between university structure and the functions that the university was expected to perform. The heads of departments felt that all faculty members could be consulted in academic matters but not in administrative matters. They further felt that the rigidity of rules left little scope for individual discretion. The study conducted by Khan (1975) analysed the governance and administrative structure of Osmania University comprehensively. Another project studied the structure and functioning of colleges in Punjab. The study revealed that there was no representation of teachers in college managing bodies in Punjab (Sindhi, 1984). Khader (1983) studied college environment in six universities and found that university departments, constituent colleges and affiliated colleges, as institutions, varied to a large extent on intellectual orientation and monetary award and on institutional typology. The study on organization of libraries in higher educational institutions in Kerala revealed that neither their structure nor their functioning was based on scientific principles (Bavakutty, 1984.). Fathima's (1984) study revealed that Muslim educational institutions were successful in fulfilling their obligation and realizing national objectives in the field of education.

Single-teacher schools were setup in some parts of Assam without considering even the primary requirements of a school (SIE, 1968). Pathak (1985) studied the growth of administration and organization of in-service education for secondary school personnel in India. The study revealed that the apex body made gradual efforts to transfer the responsibility to states/local managements during the period from 1955 to 1971, and the goal was achieved in 1971. Another interesting study on tuition classes revealed that the motive behind these was monetary gain. Not much attention was given to physical facilities in tuition classes (Joshi, 1985).

Unlike in the case of industrial and business organizations, professional management research on organizational structure and processes of optimization is totally missing in education. As a result, organizations are designed in an *ad hoc* manner. Even the national level institutes like the NCERT, NIEPA, TTTIs, IIMs, IITs vary widely from each other in their organizational design. Organizational design and structuring is an open area for researchers on educational management.

BEHAVIOURAL ASPECTS

The attitudes, perceptions and morale of students, teachers and leaders of institutions are the key components which ultimately keep an institutions moving. These behavioural aspects play a dominant role in management of institutions. Revelations by a growing number of researches in this area in the last few decades are testimony to this. During the last four years, around forty studies were completed in this area. These studies can be grouped into three areas:

i . Organizational climate
ii . Leadership behaviour
iii. Job satisfaction and other issues

The number of studies conducted in each area, statewise coverage and level of education are given in Table 21.6.

Table 21.6

AREA, LEVEL AND STATEWISE DISTRIBUTION OF STUDIES

Area	*No. of studies*	*Levels*	states/Countries
Organizational climate	20	School	Chandigarh, Rajasthan, Tamil Nadu, Orissa, Karnataka, Gujarat, Jammu & Kashmir, Madhya Pradesh, Bangladesh, Thailand
		Higher	AP, UP, Gujarat, Tamil Nadu, Thailand
Leadership	10	School	UP, Delhi, Punjab, Gujarat, Goa, Meghalaya, Tamil Nadu, Thailand
Job Satisfaction	8	School	Punjab, Haryana, Chandigarh, Nagaland, Karnataka, HP, Bihar
		Higher	Punjab, Tamil Nadu, AP
		Technical	Madhya Pradesh

The studies on behavioural aspects have a wide geographical coverage. The table indicates that more or less all parts of the country were covered, except Kerala, Maharashtra and West Bengal. Another important region left out was the North-East Region except for one study on Nagaland. UP and Karnataka have the largest number of researches. It would be interesting to note that not many studies were conducted on leadership in higher education.

The survey method was used in a majority of the studies. The instruments used were standardized tests like LBDQ by Halpin, OCDQ by Halpin and Croft, the Purdue Teacher Opinionnaire, attitude scales and tests and interview schedules in few cases. The SD, t-test, coefficient of correlation, ANOVA, F-ratio and linear regression were the common statistical techniques used in data analyses.

Most of the studies on organizational climate are based on OCDQ. The studies included here reveal that the majority of the Indian schools have a closed climate, followed by open and autonomous climates (Baraiya, 1985; Swatantra Devi, 1985; Mistry, 1985; Panda, 1985, and Prakasham, 1986). Teachers morale was comparatively high in open climates (Chaichana, 1981, and Vichao, 1983). Narula (1986) analysed the common factors of teacher morale. Five factors were extracted, viz., (a) self confidence, (b) morale based on educational and social support, (c) human and social relationships, (d) service conditions, and (e) professional adjustment.

Most of these studies related organizational climate with a set of other variables like teacher morale, job satisfaction, performance of students, etc. The results are not consistent. They do not make much contribution in understanding the processes of improving management. A university climate was perceived by faculty in many ways irrespective of their age, level or position (Umadevi, 1983). Classroom climate was found to play a crucial role in student achievement (Lalita Kumari, 1984, and Singh, 1984). Sathappan (1984) found that productive and non-productive groups of college teachers did not differ on variables like professional attitudes and perceived organizational characteristics. Classroom climate was found to play a crucial role in student achievement (Kumari, 1984, and Singh, 1984).

Organizational climate has a positive relationship with students' maturity, students' morale and students' achievement (Gupta, 1984, Puranik, 1985, and Sharma, 1983). Another study revealed that disengagement among teachers was found to be related negatively to school effectiveness, while feeling of espirit and feeling of intimacy were found related positively to school effectiveness (Srivastava, 1985). Sriratna (1983) studied the problem of educational administration in Thailand and found that the community participation was too low to improve school effectiveness. Work values and academic values of students underwent continuous change from the time of joining the MBBS course to the completion of course (Rao, 1975). The promotion of a favourable organizational climate for creativity helped to increase productivity, job satisfaction and the mental health of workers (Ganesan, 1987).

Over the years, one observes a steady flow of research on leadership behaviour. One, however, develops an apprehension that such studies are primarily around the instrument, LBDQ (old version). Studies on leadership of heads of schools revealed that initiating structure and consideration were important for effective leader behaviour (Ara, 1986, Pandey, 1985, Patel, 1983 and Phongchun, 1985). Initiating structure and consideration were alike in both elementary and secondary school heads, but elementary school teachers had higher esprit and intimacy than secondary school teachers (Singh, 1985). It must be noted that the older version of LBDQ measures only initiating structure and consideration.

There was no significant relationship between principals' administrative behaviour and school climate, and students' achievement (Das, 1983). The performance of a school in the SSLC examination seemed to be the overriding criterion in assessing the efficiency of a school (Arunajatai, 1979). Principals and teachers were significantly different on perceptions of their roles in organization (Khushdil, 1985). A study on the Role performance of heads of colleges identified ten major roles of heads of colleges. Out of these ten roles, principals were perceived as performing more frequently the role of 'office manager', 'mentor and reconciliator', and least frequently the role of 'academician and teacher', (Bhagia, Juneja and Srikant, 1986). Virmani (1984) used the LEAD questionnaire and studied style flexibility, effectivity and preferred style. He found that style flexibility of heads of schools was related to the intelligence and creativity of principals but not with students' achievement.

Krishnaraj (1987) studied leadership at college level. Leadership behaviour was more or less the same in both affiliated and autonomous colleges; and centralization of authority was found in autonomous colleges at lower levels. Mukhopadhyay and others (in progress) recently completed a survey of leadership styles among school and college principals and district education officers. Very few respondents (not more than 4 per cent) opted for delegation as a style. They preferred to labour themselves instead. Lack of trust in others was the predominant cause. School principals fared better in style flex and effectivity scores than college principals.

Teachers' job satisfaction is important for school organization and improvement. Teachers' job satisfaction significantly varies with organizational climate and it was higher in open climate schools (Abdul, 1986, Kulsum, 1985, and Sarkar, 1985). Kakkar (1983) found that women employees of different vocations differed significantly in their job satisfaction; and job satisfaction was positively related to occupational level. Another study revealed that the job intrinsic variable correlated positively and significantly with job satisfaction of professionals, viz., teachers, engineers, advocates and doctors. Job concrete and job abstract dimensions of the variable had also been found positively and significantly correlated with job satisfaction (Amarsing, 1985). Tali (1984) examined and found that the quality of teaching and efficiency of high school teachers were adversely affected by poor job conditions and inadequate provision of facilities. Organizational characteristics, viz., esprit, thrust, consideration and total leadership behaviour were correlates of job satisfaction (Balvender Kaur, 1986). Student activism had a relationship with leadership of heads, teachers and improper methods of teaching (Rama, 1978).

Studies on behavioural aspects of management are large in number and important. In terms of statistical designs too they stand out, maybe because of easy-fit into multivariate designs. The studies, however, suffer from a few major limitations and gaps.

These types of studies—design, tools, statistical analyses—were initiated in the early 70s at the Centre of Advanced Study in Education, Baroda. Except for changes in the names of the authors and the years of completion of studies, one hardly comes across any development in the formulation of the problem, scope and methodologies of the studies during the last 13-15 years. The stagnation seems to be true even in the centre that pioneered such research. This would be evident from the reviews in the previous three surveys (Buch, 1974, 1979 and 1986) and studies now included in this volume.

To derive a more comprehensive and systemic frame of organizational behaviour, studies are needed, alongwith leadership, organizational climate, on decision-making, motivation in work situations, group dynamics and team building, conflict management, interpersonal relationships and communications in organizations. Studies on most of these critical problems are totally absent.

Research on organizational behaviour derives its inspiration from the goal of organization development. These studies do not document a single case elaborating the processes of organization development incorporating all the components of organizational behaviour. Mukhopadhyay (1985) documented some experiments on organization development but no comprehensive research is available. In order to bring research on organizational behaviour in education to a professional level, researches have to be initiated in many of these crucial issues to bridge the existing gaps.

RESOURCES

Resources include men, money and material. The success of any organization lies in mobilization and optimal utilization of these resources. Researches were carried out in the past on very few aspects of resources, particularly on physical facilities, but not on monetary aspects. During 1983-87, eight studies have been completed.

Four studies concentrated on utilization of incentives given to SC/ST, backward classess and merit students, one study examined the impact of physical facilities on primary education and another examined the procurement and utilization of financial resources in Nepal. Of the remaining two studies, one examined inventory management in engineering colleges and the other had focused on education financing and equity in Kerala and Haryana. These studies were carried out in the states of Assam, Maharashtra, Punjab, Himachal Pradesh, Gujarat, Kerala, Haryana and Nepal.

Facilities provided to students of backward classes were utilized to a large extent. However, most of the students did not know the details of the facilities available to them (Deshpande, 1984). Premi's (1982) study on ITIs also revealed that students were not aware of the facilities. Residential secondary schools were provided with adequate monetary and non-monetary inputs. However, utilization of these schools by scholars was dampened due to many other factors (Rao). Gupta (1986) found in a comparative study that merit scholarship holders at college level were more numerous among students of Punjab than those in Himachal Pradesh.

Das (1974) found a significant relationship between physical facilities in schools and the quality of education. Shortage of funds and delays in disbursing grants by the government were two serious problems in school education in Nepal (Mall, 1985).

Mukhopadhyay and Murthy (1986) conducted a national-level study on inventory management in engineering colleges. The study revealed a wide gap on per capita expense on consumables in central, state and university colleges. The centrally funded institutes were the most privileged. The study also revealed that, due to lack of proper utilization of resources, management cost of material was often higher than the cost of the material itself.

The study on education financing and equity conducted by NIEPA (1982) revealed that both Haryana and Kerala presented a picture of steady educational growth. Other findings of the study were: non-teaching expenditure was very small, indicating that the schools were running without needed equipments. Grants-in-aid rules need to be liberalized, particularly in respect of backward areas.

There are no studies on resource mobilization and utilization. Although the studies referred to above make some contribution, the researches on resources are too meagre.

LEGAL SUPPORT

The NPE, 1986, recommended a statutory status for a few bodies like the AICTE and NCTE, after reviewing their functions, rules and regulations. Not many studies were conducted on statutes and rules. There was one study that analysed comprehensively the provisions and statutes in Osmania University (Khan, 1975). The study found that, to perform the variety of tasks in meeting the variegated responsibilities for the fulfilment of the objectives expected of it, the university was given an organisational structure by an act of legislature. The Vice Chancellor was the academic leader, administrative leader and fiscal manager. Sobti (1987) conducted an elaborate study of the financial code for university systems. These kinds of studies on rules, regulations and their comparison in various organizations are necessary. In the process of debureaucratization, flexibility in rules and provisions becomes important.

PRACTICES

There are widely differing practices vis-a-vis some of the management functions, like admission, instruction, examination and inventory control, in institutional and systems management in education. Although there are not many studies in this area it would, however, be useful to examine some of these studies.

Mehta (1977) studied remedial teaching practice. He found that the programme of remedial teaching could be integrated with the programme of working holidays. Ravishankar (1982) studied the use of educational technology. The audio-visual aids were not found to be used widely in in-service training programmes of public enterprises.

The study on profiles of private candidates appearing for the SSLC examination revealed that the majority of these were high school dropouts. Among them, the number of SC and ST candidates were slightly higher than others (Nagaraju, 1983). Sharma (1979) found that health examination was carried out only on 33 per cent of the students in schools, and records of them were not maintained due to lack of health cards. Jesudason (1986) critically examined the perceptions of the teaching community of higher secondary schools about the academic and administrative components and issues related to the introduction of the internal assessment scheme and question bank as reforms in the examination system.

In the teaching-learning process, emphasis was laid on the acquisition of knowledge rather than on the application of knowledge to a new situation (Misra, 1968).

An indepth study on inventory management in engineering colleges has revealed the pros and cons of this practice (Mukhopadhyay and Murthy, 1986). The engineering colleges do not adopt a professional approach to inventory management despite the fact that this subject is taught in every engineering institution. Also, the institutions varied widely in their approaches.

Potdar (1986) suggested a multi-stage screening procedure for admission to the B.Sc. course. The semester system has been one of the issues under discussion ever since the early 70s. It was found that this system was adopted by many universities and discontinued in some others. The system made both teachers and students face a tight schedule (Pillai, 1986). Another crucial problem of the university system concerned examinations—inaccuracies and delays in examination etc. The reasons for this condition were found in the entire examination procedure rather than just a section of it (Sen, 1981).

CHANGE

Management of change is one of the fascinating problems of research on management. Since the beginning of research in this area in the mid 60s, most studies adopted a quasi-scaling approach on Roger's model, leading to identification of a cluster of variables that are related to change-related behaviour of educational personnel/ teachers and principals. There have been 40-odd studies in this area. In this section, ten fresh studies have been identified Table 21.7 indicates the coverage of studies level and statewise.

Table 21.7

LEVEL AND STATEWISE DISTRIBUTION OF STUDIES ON CHANGE

Level	*No.*	*State*
School	7	Haryana, Delhi, Gujarat, Maharashtra, Tamil Nadu, Meghalaya
Higher	1	Tamil Nadu
All levels	2	All India

Diffusion of innovations was found positively and significantly related to the school climate (Methi, 1985). Another study supported this view but did not find statistical significance (Bagga, 1983). Innovative schools were found to have high change proneness (Kalla, 1984, and Mohna, 1983). The gap between origin of innovation and diffusion always occurs due to many factors like ineffective communication, a tendency to keep new practices private and unpublished, conservatism among teachers, and lack of confidence and competence (Rajagopalan, 1983). Chauhan (1983) studied the characteristics of administrators. Innovative educational administrator had risk-taking capacity, self-confidence and willingness to innovate (Chauhan, 1983). Lack of participation of principals and other functionaries in the decision-making process came in the way of effective implementation of innovations (Kangasabapathy, 1986).

Kongrimai's (1984) study revealed that principals who visited innovative schools and studied improvement programmes were likely to accept new ideas and programmes without much resistance.

Mukhopadhyay (1984) made a diagnostic study on management of change. On the basis of analysis of large number of Indian studies and a conceptual framework, the author concluded that management of change has not been one of the direct concerns of educational managers, leaving many gaps in the process of ensuring change. In another ongoing study, a series of cases have been developed on management of change at national, state and institutional level initiatives (Mukhopadhyay, in progress). Studies on successful innovative institutions and documents in the form of a case would help others to understand the criticality of the process of change and its management.

PERSONNEL

Personnel management is one of the critical areas of management. During the years under consideration, there have been 11 studies on personnel selection, structure, service conditions and transfer. Table 21.8 indicates level and statewise coverage of studies.

Appointment of teachers was not done under the reservation of seats schemes in the affiliated colleges according to the norms of the state government (Bhavare, 1985). The study further revealed that there was no mechanism to review the situation and for exerting direct pressure against the defaulting institutions. Fre-

Table 21.8

LEVEL AND STATEWISE DISTRIBUTION OF STUDIES ON PERSONNEL

Level	*No.*	*State*
School	3	Rajasthan
Higher	5	Maharashtra and all-India studies
Technical	1	All-India
General	2	All-India

quent transfers of DEOs and their promotions were studied by Sharma (1978). The study found that, due to frequency of transfers and promotions and retirements, the average stay of one DEO in a district was nine months and the range was six to twelve months. A few other studies examined issues related to training (Sharma, 1981) and shortage of teachers (Sharma, 1976). The studies revealed that there were more untrained teachers in primary schools and, on an average, shortage of teachers was two per school.

Mukhopadhyay and Murthy (1986) studied personnel structure in engineering colleges and used Delhi to propose a rational structure. They found wide intra and inter collegiate variations in the ratios between teaching staff and technical staff, teaching staff and clerical staff and among professors, readers and lecturers. The work-load and need for specialization rather than the formula 1:2:4 was proposed as a criterion for determining the proportion of academic staff at different levels.

Varghese (1983) examined in-service education and its utility and value. Another interesting study focused on problems of resettlement of Air Force personnel after service (Punnoose, 1983).

As a part of the studies sponsored by the National Commission on Teachers in Higher Education, several analytical works were undertaken in the area of personnel management. Some of the important areas covered are: Recruitment (Singh, 1985), Grievances and their Redressal (Banerjee and Pylee 1985), Mobility and Inbreeding (Naqvi, Chopra and Kapur, 1985) and Professional and Career Development (Raza and Fernandes, 1985).

The studies listed above provide very little cue or information support for improvement of personnel management in education. Personnel structure, the selection process, placement and transfer, promotion, human resource development, transition and rehabilitation are some of the problems on which one or two researches have been conducted, but they are far too inadequate.

There are wide variations among the various states in practices of personnel management. No comparative study is however available to draw any lesson. Following the NPE, 1986 and the POA, a national committee is working on norms of transfer, NCTEs have gone into the issues of promotion and career growth, DIET, SIEPA and ASCs are being established all over the country to provide professional support to HRD activities in education. Every group is starting from scratch in the absence of any relevant research evidence.

MONITORING AND EVALUATION

There are 16 studies on monitoring and evaluation. Of these, 14 are on school education and one study each is on non-formal and special education respectively. Table 21.9 indicates the statewise coverage of these studies.

Table 21.9

STATEWISE COVERAGE OF STUDIES ON MONITORING AND EVALUATION

Level	*No.*	*State*
School	14	Rajasthan, Andhra Pradesh, Tamil Nadu Uttar Pradesh, Orissa, Maharashtra, Thailand
Non-formal	1	Andhra Pradesh
Special Education	1	Maharastra

Evaluative studies provide feedback that helps improvement of the scheme/project. District and state-level science fairs provide a forum to exchange views and ideas of students, teachers, planners and administrators (Natarajan, 1983, and SCERT, 1980). Administration of secondary education in Uttar Pradesh was adversely affected to a large extent due to dual control of government and managements (Misra, 1983). SC and ST students of Harijan and Tribal Welfare Department schools showed marked and developed personality characteristics in comparison with other caste students, except in punctuality (Kamila,

1985). Sharma (1985) found that DEOs could inspect only half of the allotted schools due to pressure of other functions. Three-hour schools in Rajasthan began on a promising note (Verma, 1968); however the enthusiasm and interest of administrators, teachers and students gradually decreased in course of time (Shekhawat, 1972) due to lack of proper monitoring Sriviha (1986) found that supervisory activities could not be monitored effectively by principals due to non-availability of time and energy.

School improvement plans were prepared in many schools of Rajasthan as recommended by the Indian Education Commission, 1966 (Sharma, 1975). Another study in Rajasthan was on the impact of study camps for talented pupils. The camps did help students to get through the National Talent Examination (SCERT, 1982).

In India, very few schools have clear-cut schemes of self-evaluation. In few cases, it is carried out once in a while. In American and GDR schools self-evaluation is practised but it was not effective due to lack of adequate techniques and bureaucratic pressure (Deane, 1985). A study examined in detail the educational adminstration with reference to decentralization in Tamil Nadu (Radhakrishnan, 1984). The impact of the Mid-day Meals Programme on enrolement and retention rate at the primary stage, particularly in rural areas, was found significant in an all-India study by Saxena and Mittal (1985).

An in-depth study on monitoring and functioning of post-matric scholarships revealed that there was no uniformity amongst the state, particularly with reference to time-frame and disbursement of money to students. No systematic effort was made to streamline the functioning of the scheme (NIEPA, 1986).

A study on special education revealed that integrated education for handicapped children was very useful, however at this stage the hurdles were non-availability of equipment, and teachers and lack of proper machinery to identify children (Rane, 1983).

A very massive project has been completed on evaluation of non-formal education in nine educationally backward states of India sponsored by the Ministry of Human Resource Developement (NIEPA, 1987). This study revealed wide divergence in the process of implementation of NFE and levels of achievement of the scheme. Murthy (1986) evaluated administration of non-formal education in Andhra Pradesh and found that administrative machinery was inadequate both at state and district level.

TRENDS

While reviewing research on management of education a few trends are evident in terms of:

a. Coverage of Sub-areas of research
b. Quantum of research in each sub-area
c. Differential concentration of research at various levels of education
d. Geographical coverage
e. Trend of research approach or methodology, and
f. Findings of such research

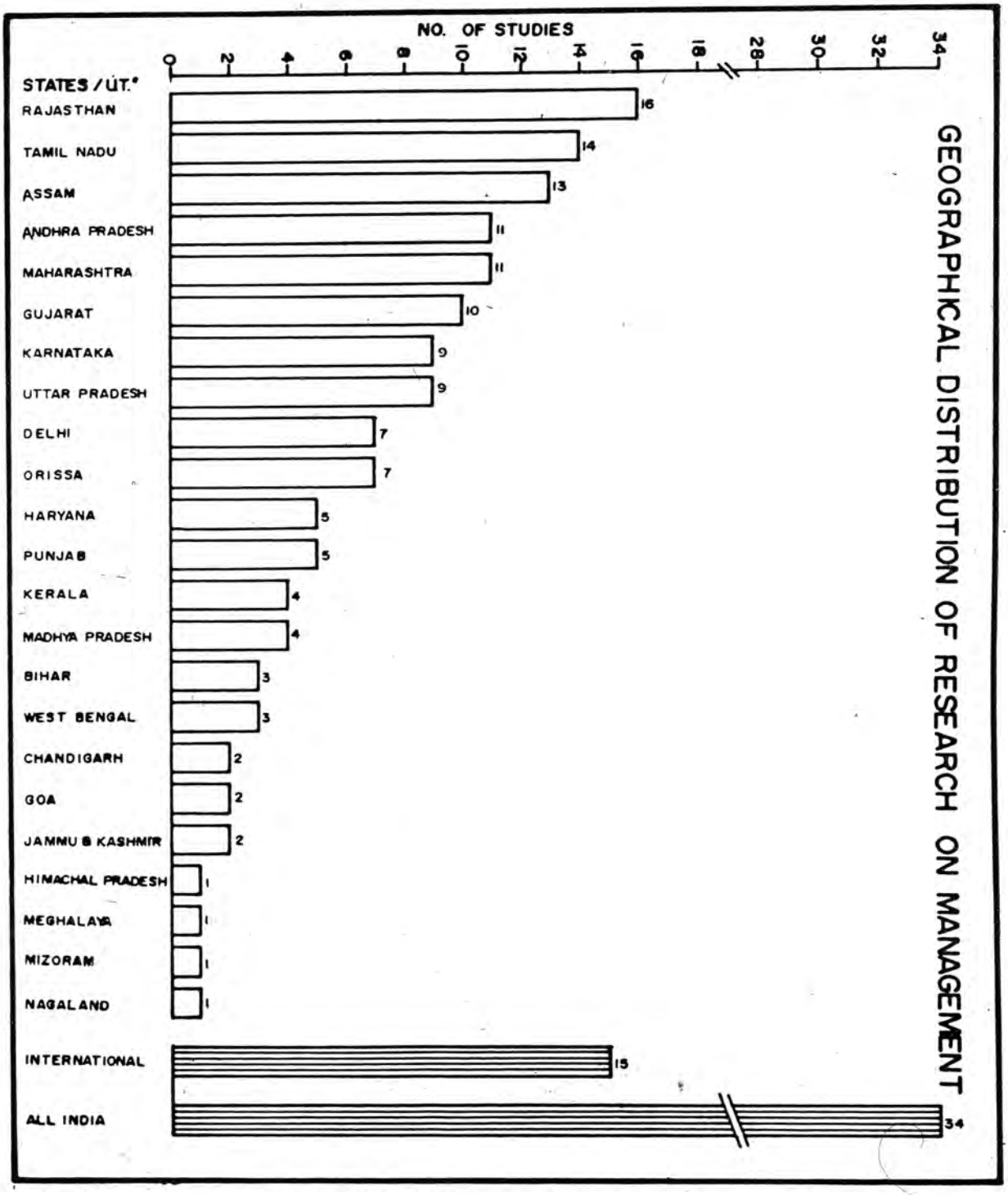
Items 'a', 'b' and 'c', are covered in Table 21.10.

Table 21.10

THEMATIC COVERAGE OF RESEARCH ON EDUCATIONAL MANAGEMENT AT VARIOUS LEVELS

Areas	*School*	*NPE*	*Higher*	*Technical*	*Adult & NFE*	*Special Edn.*	*All Levels*	*Total*
History & status	18	-	6	2	1	-	7	34
Planning	3	-	1	1	-	-	10	15
Special groups	7	-	1	1	-	-	1	10
Special problems	9	-	-	-	-	-	-	9
Participation	1	-	-	-	-	-	-	1
Autonomy	-	-	2	-	-	-	-	2
Structures	3	-	7	-	-	-	2	12
Behavioural aspects	27	-	7	2	-	-	2	38
Resources	4	-	2	2	-	-	-	8
Legal support	-	-	2	-	-	-	-	2
Practices	6	-	3	1	-	-	-	10
Change	7	-	1	-	-	-	2	10
Personnel	3	-	5	1	-	-	2	11
Monitoring & evaluation	14	-	-	-	1	1	-	16
	102	-	37	10	2	1	26	178

Table 21.10 reveals certain major trends in terms of coverage of research on educational management. A very large number of researchers opted for research on the behavioural aspects of management and an almost equal number studied either the history or the present status of the administrative system in education. Problems like planning, monitoring, various organizational patterns, practices, changes etc. received nearly equal attention among the researchers. Problems of participa-


GEOGRAPHICAL DISTRIBUTION OF RESEARCH ON MANAGEMENT
NO. OF STUDIES
0 2 4 6 8 10 12 14 16 18 28 30 32 34
STATES / UT.°
RAJASTHAN 16
TAMIL NADU 14
ASSAM 13
ANDHRA PRADESH 11
MAHARASHTRA 11
GUJARAT 10
KARNATAKA 9
UTTAR PRADESH 9
DELHI 7
ORISSA 7
HARYANA 5
PUNJAB 5
KERALA 4
MADHYA PRADESH 4
BIHAR 3
WEST BENGAL 3
CHANDIGARH 2
GOA 2
JAMMU & KASHMIR 2
HIMACHAL PRADESH 1
MEGHALAYA 1
MIZORAM 1
NAGALAND 1
INTERNATIONAL 15
ALL INDIA 34

tory management, decentralization, organizational design and development, management of autonomy, rules, regulations and statutes are some of the important areas of modern management which have not received any attention from the researchers.

Among the various levels of education, as usual, school education received the single largest amount of attention of the researchers followed by higher education and other levels. The reasons are not far too seek. Since most of the research workers who work for the Ph.D. belong to the field of teacher-education and their attention is directed essentially on school education, research on management automatically focuses on to school education. While there is no proof that other sectors are managed better, it is interesting to note that the managaement of the high-cost education sector, namely, higher education and technical and other professioanl education, has remained almost unexplored.

Figure 4 locates research in educational management in different states. It is obvious from the mapping that educational research on management is not distributed uniformly over the various states and union territories.

Attention may also be drawn to increasing number of researches done in India on neighbouring countries. Research workers from several third world countries have contributed research studies on management of education in their respective countries.

In the earlier pages of this review, comments on methodology have been made under each of the sections. As a trend it might be worth-while to mention that it is quite consistent to the extent that almost all research studies on management adopted the corosssectional survey approach, only occasionally adopting historical approaches. In terms of a broad methodology, there is very little, if any, experimental research on management. On the statistical exercise, most of the studies restricted themselves to elementary descriptive statistics, except for studies in the behavioural science area that adopted regression, analysis of variance and a few such other statistics. Methodologically, options do not seem to be many and exhaustive. In fact, they are restricted to a few options and seem to have been guided by the tradition of such research.

Trends of findings have been given in each section. It is difficult, if not unnecessary, to recollect the findings at this stage, again. Nevertheless, it might be relevant to mention that most of the findings are in tune with previous similar studies in the country and often match with international findings. This way raise a new dimension in the question of cultural bias in management or otherwise.

THE FUTURE

A review of research on educational management should have a conceptual design. Management science has matured over the last few decades and is now capable of providing a theoretical framework. It is more important to provide a framework which is not necessarily culture free. Research on management should be able to provide a message different from two stage import, namely, western to Indian situation and Indian business administration to educational management in the country. While there have not been many efforts to develop substantive management designs in education, the National Policy on Education and Programme of Action, as stated earlier, deliberated at length on the question of management of the educational systems. They propose a few management approaches and a series of activities with a view to 'making the system work'. Emergence of any scientific management system that could ensure better performance for the educational system would have to be supported by an adequate amount of research.

Research on educational management in this new context would have to take a different shape, and particularly since the goals of such research would be different. For any country that has adopted planned development increasingly emphasizing decentralized micro-level planning, education can be no exception. In fact, following the National Policy on Education, efforts have been under way to develop district level plans for education which include creation of District Boards of Education, District Institutes of Education and Training, school mapping, school networking, placement, transfer of teachers, etc. While such innovative efforts are under way, the fact of life at the moment is that districts neither have enough scientific information nor adequate research base to evaluate how reasonable and feasible district level planning would be. Further, research may also be needed to resolve the present claims of planned development of education due to official initiative vis-a-vis people-initiated planning, and establishment of schools supported by government but not owned by and run by government. In either of the cases, it would be necessary to develop a database and research support to improve planning at the microlevel.

As a consequence to micro-level planning at the district level, the planning process has to get down to institutional level. Institutional planning is not a new concept, particularly as one looks at one of the earlier documents on Institutional planning by the late Shri J.P. Naik. It has, however, not happened as a management practice in the institutes, whether at school, collegiate or in professional education. It may not be an over-statement to say that there are not even enough comprehensive alternative models on institutional planning available in the country to examine, learn and disseminate. Much less is the research on institutional planning as has been indicated earlier, particularly to test whether it necessarily relates to better performance of the organization. What approach to institutional planning leads to better performance? What are the alternative contributions of a behavioural model of institutional planning vis-a-vis a traditional administrative model close to physical resource planning?—answers will have to be sought to such questions.

There have been very few efforts at estimation of utilization of resources in education and also cost-effectiveness and institutional performances. Although the efforts are not many, they provide some indication that the educational system at the state, district and institutional level including national institutes, is not performing at the optimum level. As a result, more funds may not necessarily lead to the achievement of educational goals and objectives. On the contrary, more funds might mean replication of more inefficient units of the system. Organized research needs to be initiated to understand the parameters that make an educational system more productive, more functional and more effficient. Long-term experimental projects will have to be initiated to develop alternative, comparative models for making the system work and on institution building.

While management may have multiple interim goals, the fundamental objective of the management process is to stimulate and manage change. The entire exercise of formulating the National Policy and Plan document is basically geared to designing intervention for management of change in education. There have been some studies on management of change in education in this country, but not many studies provide enough guidance to understand how the change at the micro-level could be effected. One is tempted to refer to the famous critique 'Education Commission and After' by late Shri J.P. Naik. Despite the fact that it was an individual's reflection, the classification of the recommendations of the Education Commission gives an invaluable understanding of the process at the micro-level which, however, needs far stronger support of research evidence. The National Policy on Education and the subsequent activities at the national and state level have initiated a massive process of change. This provides an unparalleled opportunity to the researchers in the near future to devote themselves to studies on management of change at the institutional level and at macro-micro dimensions, including the impact of policies and planning processes on educational change.

It would be evident from the studies reviewed in the present as well as in the previous three surveys of research in education that a majority of studies are contributed by Ph.D. scholars from various Indian universities. Unlike in American universities, Indian Ph.D. scholars usually take a direct entry from their postgraduate level. As such, they need the maturity, work experience and understanding of the educational system and the intricate processes peculiar to organization and their culture. While Ph.D. studies would continue to contribute in their own style in generating information, exploring relations amongst various variables of the management personnel institutional research would have to be strengthened far more rigorously in order that studies on micro-planning and institutional planning, organisational goal setting, management of change at the macro level and so on, can really be taken up by experienced researchers. In this context, it would be important to identify the institutes which specialize in management and particularly in management of education. The National Institute of Educational Planning and Administration and the education groups within the public system group in the Indian Institutes of Management would have to have a very major role to play. While fifty odd university departments of management have not taken much interest in the field of educational management, it would be necessary to persuade such departments to allocate at least part of their time and attention to the problems of the educational sector. Further, the proposed State Institutes of Educational Planning and Administration and the Planning and Management Unit in the District Institutes of Education and Training would also have to play a critical role in developing research and a database for decentralized planning and management at the grass roots level.

ABSTRACTS: 1205—1315

1205. AGARWAL, V., *A Study of Stress Proneness, Adjustment and Job Satisfaction as Predictors of Administrative Effectiveness of Principals,* Ph.D. Edu., Mee. U., 1983

The objectives were (i) to study the relationship between principals' stress proneness and their administrative effectiveness, (ii) to study the relationship between principals' adjustment and their administrative effectiveness, (iii) to study the relationship between principals' job satisfaction and their administrative effectiveness, and (iv) to study the relationship of stress proneness, adjustment and job satisfaction of principals combined with their administrative effectiveness.

The sample comprised 423 principals of intermediate colleges. Administrative effectiveness was the dependent variable and was measured with the help of the Administrative Effectiveness Scale developed by A. Bhatnagar. The reliability coefficient was 0.86. The Principal Administrative Stress Proneness Scale was developed and used for measuring principals' stress proneness. A Principal Adjustment Scale was constructed for measuring principal's adjustment. The split-half reliability coefficient was 0.87. The Job Satisfaction Index, an Indian adaptation of Brayfield and Rothi's Index of Job Satisfaction made by Rathore were used for measuring job satisfaction of principals. The conclusions were drawn with the help of product-moment correlation.

The findings were: 1. Stress proneness of principals was not significantly related to their administrative effectiveness. 2. No relationship was found between teacher-based stress proneness of principals and their administrative effectiveness. 3. The administrative effectiveness of principal was not related to stress proneness emanating from students. 4. Community-based stress proneness of principals was not found to contribute to their administrative effectiveness. 5. Ministerial staff-based stress proneness was found to be a significant predictor of principals' administrative effectiveness. 6. Management-based stress proneness of principals was found to be significantly related to their administrative efficiency. 7. Higher-authorities-based principals' stress proneness was not found to be related to their administrative efficiency. 8. Principals' adjustment was found to be a powerful predictor of their administrative effectiveness. 9. Adjustment of principals to the teachers was not found to be significantly related to their administrative effectiveness. 10. It was found that principals' adjustment to students was highly related to their administrative effectiveness. A similar result was found in the case of principals' adjustment to ministerial staff. 11. The adjustment of principals to management was not found to be related to their administrative effectiveness. 12. Principals' adjustment to the community was not found to be a significant predictor of their administrative effectiveness. 13. Principals' adjustment to higher authorities was not found to be a significant factor of principals' administrative effectiveness. 14. Principals' stress proneness, adjustment and job statisfaction combined together were found to be significant predictors of their administrative effectiveness. 15. When only adjustment and job satisfaction were combined, the relationship dropped. 16. Stress proneness of principals was not found to be related to their adjustment. 17. A very low correlation was found between principals' stress proneness and their job satisfaction. 18. The adjustment of principals and their job satisfaction were found to be matually related and related to their administrative effectiveness.

1206. AMARSINGH, *Correlates of Job Satisfaction Among Different Professionals;* Ph.D. Edu., Punjabi U., 1985

The objectives of the study were (i) to construct and standardize a job satisfaction scale, (ii) to find out the incidence of job satisfaction amongst professionals, (iii) to compare the incidence of job satisfaction amongst teachers, engineers, advocates and doctors, (iv) to relate job satisfaction with job-intrinsic and job-extrinsic variables and age, experience, academic and professional attainment, mental status, family size, and employment of spouse and (v) to relate job satisfaction with personality dimensions and traits such as self esteem, extraversion/introversion, neuroticism and emotional stability.

The study was conducted in two phases. In the first phase a sample of 320 subjects was selected randomly. It included 80 college or university teachers, 80 engineers, 80 advocates, 80 doctors. In the second phase those subjects from amongst teachers, engineers, advocates and doctors who had obtained scores equivalent to Q1 or below, and scores equivalent to Q3 or above on the job satisfaction scale, were administered, (i) the Rosenberg Self-esteem Scale, (ii) the Eysenck's Person-

ality Inventory. These two tests were administered to 75 subjects who were termed the dissatisfied group as well as to 87 subjects who were termed the satisfied group. The job satisfaction scale used was prepared by the investigator. It had 30 items on a five-point scale. The test-retest reliability of the scale was 0.97 and its validity established against Muthayya's satisfaction questionnaire was 0.84.

The findings of the study were: (i) The job-intrinsic variable correlated positively and significantly with job satisfaction of professionals, viz. teachers, engineers, advocates, and doctors. Job-concrete and job-abstract dimensions of this variable were also found positively and significantly correlated with job satisfaction. 2. The job-extrinsic variable including psycho-social, economic and community growth factors was found to be positively related to job satisfaction of professionals. Since the occupational status, social status, wages, etc. of the four major professional groups constituting the subjects of this study were at par with one another, on the job and off the job factors had been witnessed as affecting their job satisfaction alike. 3. Age was found to be positive correlate of job satisfaction. In the case of doctors and advocates age was found to be a positive correlate of job satisfaction. 4. Experience correlated positively and significantly in the case of advocates and doctors with job satisfaction, but on the case of teachers and engineers the relationship between experience and job satisfaction was not significant. 5. Size of family was negatively related with job satisfaction in all the categories of professionals. 6. Professionals with extra-academic and professional attainment had shown a trend towards reduced job-satisfaction. 7. Married professionals were found more satisfied than unmarried professionals. 8. Double employment was found to correlate positively with job satisfaction. 9. Self-esteem was found to be positively related with job satisfaction. 10. Neuroticism was found to be a negative correlate of job satisfaction among all the professionals. 11. Regarding relationship between extraversion and job satisfaction, it was found that high scores on extraversion affected the job satisfaction of teachers, engineers, advocates and doctors negatively.

1207. ARA, NASREEN, *A Study of Principals' Leadership Behaviour in relation to Teachers' Self-Concept, Job-Satisfaction and Some Other Institutional Characteristics at Secondary School Level,* Ph.D. Edu., Gor. U., 1986

The study was conducted to investigate principals' leadership behaviour in relation to teachers' self-concept, job-satisfaction and some other institutional characteristics at secondary school level. The objectives were (i) to study how teachers' self-concept was related to the leadership behaviour of the principals, (ii) to study the relationship between principals' leadership behaviour and teachers' job-satisfaction, and (iii) to study how principals' leadership behaviour was related to some other institutional characteristics such as sex and location of schools. The hypotheses formulated were: (1) Leadership behaviour of the principals was significantly related to teachers' self-concept. (2) Each of the two styles of principals' leadership behaviour, initiating structure and consideration, was significantly related to teachers' self-concept. (3) Leadership behaviour of the principals was related to teachers' job-satisfaction. (4) Each of the two styles of principals' leadership behaviour, initiating structure and consideration was significantly related to teachers' job-satisfaction.

The tools used were the Educational Leadership Behaviour Description Questionnaire by P.C. Shukla, Personality Differential (a measure of self-concept) by K.G. Agrawal and Teachers' Job-Satisfaction Scale by S.P. Gupta and J.P. Srivastava. The sample comprised 780 teachers from intermediate colleges of the Gorakhpur region. Critical ratio was applied to test the hypotheses.

The findings were: 1. High desirable leadership behaviour of the principals generated a higher degreee of conformity and normalcy in the teachers while low desirable leadership behaviour of principals caused a low degree of conformity and normalcy in them. 2. The initiating structure style of principals' leadership behaviour appeared to be significantly related to conformity and normalcy factors of teachers' self-concept. 3. The principals' leadership behaviour was positively related to teachers' job-satisfaction. 4. The initiating structure and consideration styles of principals' leadership behaviour was found to be significanly related with teachers' Job-satisfaction. 5. Male and female teachers perceived alike the leadership behaviour of the principals. 6. The rural-urban location of the schools was not related with the teachers' perceptions of principals' leadership behaviour.

1208. ARUNAJATAI, V., *A Study of the Efficiency of the Secondary School System in Tamil Nadu,* South India Teachers' Council of Educational Research, Madras, 1979 (NCERT financed)

The objectives of the study were (i) to identify a mean-

ingful reference frame and a configurational invariance for the study of institutional efficiency, (ii) to identify external and internal factors contributing to the efficiency of a school system, (iii) to identify the strategic parts of a school system and their functioning, (iv) to identify the constraints and sources of conflict, (v) to prepare models giving schemes for assessing the academic work and activity programme of the school as a whole, and of individual pupils of the various classes, and (vi) to identify the headmaster's role in adopting scientific principles of management and pressing into service tools of modern educational technology to instil efficiency consciousness in pupils and staff.

A sample of 100 schools, representative of high schools in Tamil Nadu was drawn randomly out of 2,700 schools. The headmaster and ten teachers from each of the high schools and ten to twelve students of classes IX, X and XI were chosen for the study. The data were collected through questionnaires given to heads of institutions, teachers and students, structured and free interview with a cross-section of members of parent-teacher associations, and from reports of state and central governments.

Major findings of the study were: 1. Fifty-five per cent of the schools had inadequate physical facilities such as buildings, classrooms and furniture; 35 per cent had inadequate facilities for sports and games in respect of equipment and playground space. 2. Coaching pupils for the SSLC examination was a practice widely prevalent in most of the schools. 3. The performance of a school in the SSLC examination seemed to be the overriding criterion in assessing whether a school was good or not for all concerned. 4. Eighty-one per cent of the pupils confessed to the practice of learning by heart answers to questions either dictated to them or marked in their textbooks. 5. Almost all the schools had parents' or parent-teachers' associations. 6. All pupils of the randomly selected schools favoured homework. 7. Twenty-two per cent of the pupils had tuitions either at home (13 per cent) or in school (nine per cent) after class hours. 8. The work-load of the heads of institutions was about eight and half hours per day; with teaching and correction work which was roughly one-third of that of a graduate teacher. 9. The work-load of a teacher of high school classes was nine hours per day, taking a week as consisting of five and a half working days. 10. Forty-six per cent of the pupils felt the moral instruction programmes of their schools, supplemented with the training they had at home, was of immense help to them in their daily life in respect of inculcating in them faith in and devotion to God, purity in thought, word and deed, virtues such as honesty, kindness, service to fellow men, humility, sense of duty and courage to face difficulties. 11. Features of school life best liked by pupils were good teaching, NCC, good results in the SSLC examination, prizes and shields won by the school in inter-school and open competitions, promotion of general knowledge and talent through quizzes, etc. 12. Teachers' responses to their sense of job-satisfaction included freedom to express their views at teachers' association meetings, satisfactory salary and service conditions, recognition of good work by school management and department. 13. SSLC results moderately correlated with physical facilities, school equipment and teacher-pupil ratio. 14. The social composition of pupils and SSLC results revealed no relationship.

1209. BAGGA, Q.L., *A Study of the Implementation of Innovations in Delhi and Haryana Schools*, Ph.D. Edu., Kur. U., 1983

The objectives of the study were (i) to make a survey of innovations in schools of Delhi and Haryana, (ii) to estimate the extent of diffusion of various innovations in schools of Delhi and Haryana, (iii) to study each of the innovations with respect to aspects like the extent of diffusion and implementation, activities and efforts in implementing innovations, characteristics of innovations, objectives of innovations, factors facilitating or hindering their progress and success achieved, and (iv) to evaluate the extent of implementation of the innovations with regard to money spent on each innovation, time devoted on each innovation, participation of students and teachers, attitude of students, teachers and educationl authorities, factors helpful in putting them into practice, barriers hindering their progress, achievement and success. The hypothesis of the study was that, while some innovations were rapidly accepted and widely diffused, others barely got off the ground.

The sample of the study consisted of 34 higher secondary schools, 260 high schools from Haryana, and 516 higher secondary schools from Delhi. The study was conducted in three phases. The first phase was to find out the functional definition of the term innovation and to develop criteria for selection of innovative practices from the schools of Delhi and Haryana. The second phase was to find out the innovations being practised in the schools of Delhi and Haryana and to select some from among them on the basis of criteria developed in

the first phase of the study. The third phase was to collect information about innovations being practised by the adopting schools. A questionnaire was administered to sample schools and it was supplemented by interview.

Some of the findings of the study were: 1. The extent of diffusion in Delhi was maximum in case of book banks, work experience, pupil-teacher association, internal assessment and education through radio and television. In the schools of Haryana, it was maximum in the case of internal assessment, education through radio and television, educational and vocational guidance, and supervised study. 2. The extent of implementation of innovations in schools of both Delhi and Haryana varied from 'some' to 'considerable' showing thereby that it was satisfactory and yet it was not 'complete and full'. 3. There was a relationship between diffusion and implementation, though not statistically significant in the case of the schools of Delhi. 4. There was much variation in the time devoted by teachers to the implementation of different innovations. Schoolteachers in Delhi spent more time on work experience, health and physical education, while their counterparts in Haryana spent more time on educational and vocational guidance, science clubs and hobby clubs. 5. Teachers of schools of Haryana spent more time on innovations than teachers of Delhi. 6. There was a positive relationship between the time devoted by teachers of schools of both Delhi and Haryana and the extent of implementation. 7. Money spent for the implementation of innovations was more in schools of Delhi than in schools of Haryana. But the results did not support the view that the extent of implementation depended upon the extent of money spent for the innovation. 8. There was a positive relationship between the extent of teacher participation in the innovations and the extent of their implementation. 9. The results of the study did not confirm the general feeling that the implementation of an innovation depended on the interest and participation of pupils. 10. Teachers of schools of Delhi showed a favourable attitude towards educational and vocational guidance, remedial teaching, pupil-teacher associations, staff meetings and work experience while teachers of schools of Haryana showed favourable attitude towards education for the gifted, in-service education for teachers and work-experience. 11. The results showed a positive relationship between the attitude of students towards innovations and the extent of implementation in Delhi and Haryana. 12. Educational authorities of both Delhi and Haryana showed a positive attitude towards innovations. 13. In terms of requirements of materials for implementation of innovations, the schools in Delhi had better access to materials in comparison with schools in Haryana. Schools in Haryana had better facilities of space and accommodation. 14. Factors most helpful in Delhi in putting the innovations into practice in order of priority were support of educational authority, encouraging results of the innovation and financial support. In schools of Haryana the factors most helpful in order of priority were encouraging results of innovations, support of educational authorities and support of colleagues. 15. The factors which had acted as barriers in the implementation of innovations in schools in Delhi were overload of work, lack of time, lack of support from the department of education and lack of enthusiasm and zeal on the part of teachers. The factors hindering the progress of implementation of innovations in schools of Haryana were overload of work, lack of time, lack of enthusiasm and zeal on the part of teachers and lack of cooperation among teachers. 16. Academic effectiveness, adaptability, communicability, independence, simplicity, divisibility, relative advantage, and prestige had been perceived as the most important characteristics of an innovation for its successful implementation.

1210. BAJPAI, M., *A Study of the Administration of Secondary Education in Uttar Pradesh after Independence*, Ph.D. Edu., Kan. U., 1984

The study was designed as a critical review of the administrative set-up for secondary education in Uttar Pradesh after independence and to make suggestions for its improvement.

Information about development of the administrative set-up for the secondary education was obtained from the primary and the secondary sources, mainly comprising government reports and other documents.

The main findings of the study were: (1) Secondary education in the state of Uttar Pradesh is managed by local bodies and voluntary agencies. (2) In the schools managed by local bodies, there is strict control by the government and the staff can be transferred also. (3) In schools managed by the private agencies and religious organisations, narrow sectarian policies are followed and some times powers are misused also. (4) There are significant differences in the administration of the government, local bodies and the private schools. (5) The

Anglo-Indian schools form a separate group of their own. (6) There has been reorganization of secondary school administration after independence but, in general, it is patterned on the model set-up during the British period. (7) In the secretariat the officials in education department are drawn from the general cadre. They are often not aware of the specific problems of education. (8) The office of the Director of Education is located at Allahabad but he has a camp office at Lucknow. This leads to delay in disposal of the work. (9) The Education Secretary looks after the posting and transfer of the officials. This denigrates the position of the Director of Education. (10) There has been a tremendous increase in the work-load in the Director's office but the staff has not been increased adequately. (11) Because of the increase in the work of the District Inspector of Schools, he is not able to look after the inspection work properly.

1211. BARAIYA, V.V., *A Study of the Organizational Climate of Higher Secondary Schools of Gujarat State in relation to Certain Variables*, Ph.D. Edu., SPU, 1985

The objectives of the study were (i) to classify the higher secondary schools of Gujarat State according to organizational climate, (ii) to discover whether there existed sex difference in the dimensions of the organizational climate of schools, (iii) to investigate the relationship between leadership behaviour of headmasters and organizational climate, (iv) to investigate the relationship between management behaviour and organizational climate, (v) to study the headmasters' behaviour and its components as factors affecting the organizational climate, (vi) to study the sex of the headmasters as the factor affecting the organizational climate, (vii) to study the type of management as the factor affecting the organizational climate, (viii) to study the stream of higher secondary schools as the factor affecting the organizational climate, (ix) to study the location of schools as the factor affecting the organizational climate, and (x) to study the headmasters' age as the factor affecting organizational climate.

The tools used for collecting data were the Organizational Climate Descriptive Questionnaire developed by Halpin and Croft, Leadership Behaviour Descriptive Questionnaire developed by Halpin and Winer, Management Leadership Behavour Description Questionnaire developed by the investigator, personal data sheets for teachers, headmasters and management developed by the investigator. The data were collected from 500 teachers of 100 higher secondary schools of Gujarat State. One hundered headmasters and 75 management members were also administered the questionnaires. The data were analysed using chi-square test.

The major findings were: 1. Out of 100 schools, 27 were found to have open climate, eight were found to have autonomous climate, 11 were found to have controlled climate, six were found to have familiar climate, 13 were found to have paternal climate, whereas 35 schools were found to have closed climate, 2. Out of 100 headmasters 45 were described as effective leaders and 30 as ineffective leaders. Thirteen headmasters were found to be high on initiative structure but low on consideration and the other 12 were found to be high on consideration but low on initiative structure. 3. The sex of the schools and also the qualifications of the principal were not found to be determining factors in the organizational climate of the school. 4. The school management providing good or poor cooperation did not influence school climate in the case of schools in rural and urban areas. 5. The members of the management committee having varying qualifications did not influence the school climate. 6. The age of the members of management committee did not influence the school climate. 7. The type of stream could not be considered as a factor responsible for types of school climate. 8. There was no significant difference between the climates of rural or urban schools.

1212. BARUAH, H., *A Critical Study on the Administration of the Secondary Schools of Assam in Post-Independence Period (1947-1977)*, Ph.D. Edu., Gau. U., 1983

The main purpose of the study was to investigate the conditions of educational administration of secondary schools of Assam in post-independence period and to find out its defects and drawbacks, if any, and to suggest measures for its improvement. The hypotheses were: (1) Bureaucratic administration has led to many defects in the educational administration. (2) lack of proper distribution of duties among different branches of educational administration hampers efficient administration. (3) Traditional inspection and supervision need reform. (4) Coordination and cooperation between the Department of Education and Board of Secondary Education would lead to efficiency and improvement in educational administration.

Government reports, records, etc. were critically studied. Schedules and questionnaires were prepared and used for interviewing officials and collecting data from inspectors of schools of ten districts of Assam and heads of secondary schools regarding the condition of internal administration of the secondary schools. The secondary-level administrative set-up at the directorate, inspectorate and institutional levels, development of the system of educational administration, internal administration of secondary schools, academic administration of the secondary education as well as the defects, drawbacks and the problems of the secondary school administration in Assam in the post-independence period were critically studied. Some measures for improvement were suggested.

The study revealed: 1. In Assam educational administration was a legacy of British rule. While education had expanded a great deal, the administration procedures and methods had remained more or less unchanged. The administrative machinery was engulfed in a bureaucratic covering. 2. The type of administration was traditional by and large, and even after three decades of independence, the aim was still conservative, preserving what was rather than developing new ideas and practices, consistent with the changing needs of developing society. 3. Though educational administration had sssumed a special importance in the post-independence era it was handicapped by tradition. 4. The conditions of secondary schools was not satisfactory. Quantitative expansion during the post-independence period had resulted in a comparative neglect of the qualitative aspect of education. There were various defects and drawbacks in the administration of the secondary schools. One of the main defects was the concentration of powers and authority in the heads of the administrative hierarchy of the education department. 5. The heads of the secondary schools did not possess powers and authority as administrators. 6. Besides, there were some other anomalies. There was a need for reforming secondary education and its administration. Maximum authority should be delegated to the lower unit. New, dynamic, creative ways of administration were called for to meet the challenges. A developmental administration has to be true to its task.

The significant educational implication is that the suggested measures in terms of the findings will provide a clear and scientific administrative machinery of secondary schools and contribute to planning and improving the standard of administration and education at the secondary stage in Assam.

1213. BAVAKUTTY, M., *A Critical Study of the Organisation and Utilisation of Libraries in Higher Educational Institutions in Kerala*, Ph.D. Edu., Ker. U., 1984

The main objectives of the study were (i) to assess the existing state of libraries in the colleges under study with respect to their administrative set-up, organizational efficiency, mode of financing, method of book selection and acquisition, technical processing, servicing, personnel and physical facilities, (ii) to assess the existing library facilities and resources in the colleges under study, in terms of their ability to cater to the varied requirements of modern higher education, (iii) to study the service efficiency of the libraries under study with the help of indices like the rate of use of library resources and facilities by both the students and the teachers in the institutions, and (iv) to work out solutions for some of their crucial problems so as to ensure a more efficient organization and operation.

The study covered nine colleges, 51 librarians, 404 students and 123 teachers. The tools and techniques used in the study were three questionnaires administered to librarians, students and teachers respectively interviews with librarians using an interview schedule prepared for the purpose, a checklist to assess adequacy of book collection, observation by the investigator of the organization and administration of librarians and analysis of relevant records. Percentages of the responses were calculated and differences between percentages were statistically tested.

The main findings were: 1. No library advisory committee was functioning in the majority of colleges. 2. In a majority of the colleges, the traditional practice of placing a teacher in charge of the library, as a control over the librarian, was in evidence. The status of the librarian, in this situation, was reduced to that of a clerk or an attender. 3. Nearly 75 per cent of the colleges covered by the study maintained departmental libraries besides a central library. 4. The main sources of finance for a college library being special fees from students, government and UGC grants, there were variations in finance. 5. The percentage proportion of annual expenditure to the total college expenditure varied between six and nine. The average percentage was far below the proportion recommended by the Education Commission (1964). 6. The colleges under study did not follow any scientific principles for selection of books. 7. In nearly 90 per cent of the government college and 60 per cent of the private college libraries, the books were

not properly classified and catalogued. 8. Private colleges had an average collection of 17,574 volumes as compared to the average of 14,853 volumes of government colleges. There was no relationship between book collection and strength of students in the colleges. 9. The libraries were open on all working days, but the colleges differed in the working hours. 10. Special library services were not attempted in any of the colleges under study. 11. The salary of college librarians was very low. 12. The general qualifications of librarians varied widely, with only 50 per cent having a bachelor's degree in library science. 13. Physical facilities of libraries were very poor, with only 24 per cent having separate buildings. 14. Only a small percentage of teachers and librarians were satisfied with the condition of libraries. 15. The frequency of use of library by students was satisfactory, but there were no differences between the different classes of students. 16. The libraries were used more for extracurricular requirements than for curricular purposes by students, and vice versa by teachers. 17. The extent of borrowing books from the library, for general as well as special subjects, was not satisfactory for students but was satisfactory for teachers.

***1214.** BHAGABATI, N., *Cocurricular Activities Organised in the Secondary Schools of Assam, and its Relevance on Physical, Social, Emotional Aspects of Adolescent Girls and Boys*, Ph.D. Edu., Gau. U., 1987

The objectives of the study were (i) to examine the prevailing conditions of cocurricular activities organized in the secondary schools of Assam, (ii) to find out the number of teachers trained to organize cocurricular activities, (iii) to find out the number of deputed or trained teachers to conduct NCC/ACC girl-guide and scout activities, (iv) to find out the extent of provision of, (A) playground, (B) school hall, (C) store room, (D) games materials, (E) swimming pool, (v) to find out the provision of cocurricular activities in the school timetable, and the number of students participating in different cocurricular activities after school hours, (vi) the number of cocurricular activities present in the school programme, (vii) to find out the number of teachers in general education and cocurricular activities, (viii) to survey the opinions of the school authorities regarding acceptance of the cocurricular activities programme, (ix) to find out the position of funds regarding cocurricular activities, (x) to find out the influence of cocurricular activities in relation to the adjustment of the adolescent students in their physical, emotional and social aspects, and (xi) to give necessary suggestions.

The normative survey method was employed to find out the existing pattern of cocurricular activities in secondary schools of Assam. One hundred schools were selected. A questionnaire was used. To find out the influence of cocurricular activities on physical, emotional and social aspects of adolescents, 1000 boys and girls (VIII to X) were selected. Experimental and control groups were formed. To study mental adjustment another set of questionnaires consisting of five statements was administered to 200 adolescent boys and girls. To find out the opinions of adolescents about participation in physical education, 100 boys and girls were administered. Prasad and Thakur's 'Attitude Measurement for Physical Education.' A case study with 25 selected adjusted and 25 selected maladjusted boys and girls was made. School teachers, teachers-in-charge of games and sports, heads of schools and parents/guardians were interviewed. Bhatia's Battery of Performance Test of Intelligence and Observation method was also used. Mean, SD, critical ratio, etc. were employed for data analysis.

Some of the major conclusions were: 1. The prevailing conditions of cocurricular activities in secondary schools of Assam was very disappointing. 2. The existing number of cocurricular activities in secondary schools were not sufficient. 3. Cocurricular activities played an important role in the adjustment of physical, emotional, mental and social aspects of adolescents. 4. Students participating in social as well as cocurricular activities were better adjusted than those who avoided or did not participate in them. 5. The contributions of cocurricular activities were many and varied. Every student realized the importance of physical education and expressed his desire for its introduction in the school. Every teacher desired to introduce cocurricular activities as a compulsory subject. 6. The subject of cocurricular activities was trailing far behind general education in terms of staff position. Funds allotted for cocurricular activities were very poor. 7. Teachers-in-charge of games and sports wholeheartedly supported the cocurricular activities programme.

***1215.** BHAGIA, N.M., JUNGA and D.H. SRIKANT, *Role Performance of Heads of Colleges*, NIEPA, 1986

The objectives of the study were (i) to identify the roles

of heads of colleges, (ii) to explore the frequency of performance of different types of roles by the heads, and (iii) to find the relationship of some factors with the role-performance of the college heads.

The study was a field survey in a randomly selected section of the population of colleges in the National Capital Region. Out of 129 colleges (arts, science and commerce) 51 were selected on the basis of stratified random sampling for the purpose of study. The tools used in the study were: (i) Role Performance Questionnaire (RPQ), (ii) Personal Data Questionnaire (PDQ), (iii) Cattell's 16 Personality Factor Questionnaire (16 PF), (iv) Organizational Health Questionnaire (OHQ) (D.K. Sharma). OHQ, RPQ, 16 PF along with background data were administered to 51 heads of colleges and a few lecturers through mail. RPQ and OHQ were administered to sample lecturers of 51 selected colleges. The data were fed into a computer for tabulation and statistical computation.

The main findings of the study were: 1. According to lecturers' assessment of the performance of various roles by the college heads, the roles connected with academic and curriculum management were the ones which got the last ranks on the frequency of their performance. 2. The greater frequency of the administrative roles as compared to the roles of 'Supervisor of the Instructional Programmes', 'Promoter of Cocurricular Activities', and 'Academician and Teacher' showed that there was a trend in the direction of the principal being more of an administrator. 3. For the roles of 'Office Manager', 'Promoter of Cocurricular Activities' and 'Staff Evaluator and Motivator', there was relatively little difference between the ranking of perception of teachers about the frequency with which the role was performed and the ranking of the relative time taken by the heads. 4. On the other hand, for the roles, 'Planner and Innovator', 'Supervisor of the Instructional Programme', and Academician and 'Teacher' the principals reported spending a fairly large or considerable chunk of their time, while the lecturers felt that the roles were not being performed to that extent. 5. There was no significant relationship between personal factors (age, qualification, experience and training of college heads) and role performance except in the role of 'Promoter of Cocurricular Activities', the age of the college heads was significantly and negatively related. 6. There was significant negative correlation between the personality factors 'Reserved *vs.* Outgoing' and the role 'Staff Evaluator and Motivator'. 7. There was a significant positive correlation between the personality factor 'Sober *vs.* Enthusiastic' and the performance on the roles 'Academician and Teacher' Representative of the College', and 'Bridge Builder with the Community'. 8. There was a significant negative relationship between the personality factor 'Forthright *vs.* Polished' and the role of 'Staff Evaluator and Motivator'. 9. Three dimensions of organizational health, namely, 'Goal Focus', 'Communication Adequacy' and 'Resource Utilization', correlated positively and significantly with all the ten dimensions of role performance.

1216. BHAVARE, N.G., *A Study of the Appointment of Teachers under the Reservation of Seats Scheme in the Affiliated Colleges and Departments of the Marathwada University during the Period 1977 to 1984*, IIE, 1985

The major objectives were (i) to examine the category-wise recruitment and the percentge of scheduled caste teachers in colleges and in the departments of Marathwada University, and (ii) to study the causes and the circumstances responsible for not fulfilling the reserved seats.

The researcher collected information from the university office. Selected experienced principals were interviewed, consulted and their opinions were carefully studied.

The main findings were: 1. The reservation scheme was introduced in affiliated colleges in March 1975. However, during the year 1975-76, 22 colleges out of 67 had zero per cent reservations. In the following years, the number of such colleges was 17, 12 and 152. In 1981, the Government of Maharashtra introduced a new scheme and filling the reserved seats was made imperative for colleges. The situation, thereafter, changed. From 1981 to 1984 the overall reservation percentage increased from 31 to 42 and the backlog percentage decreased from 69 to 58. 3. The Marathwada University departments followed the rules but the colleges did not. 4. The university authorities recruited members of the backward classes even before the reservation scheme was adopted. By 1975 there were eight teachers from backward classes. After the formal adoption of the reservation scheme the Marathwada University recruited backward class teachers whenever qualified and suitable candidates were available. But from 1975 to 1981 the vacancies were not declared a 'Reserved'. 5. Since March 1981, vacancies were always declared as 'Reserved' and if the reserved posts could not be filled they

were advertised thrice as required under the new government resolution. 6. Reservation in the case of SC lecturers had reached the 100 per cent mark in the Marathwada University. Even in the case of readers and professors, progress of reservation was satisfactory. However, in the case of scheduled tribes and denotified tribes, there was still a considerable backlog on account of non-availability of suitable candidates of these categories. 7. Most of the colleges did not pay any attention to the directive given by the universiy. Some advertisements simply made a promise of giving preference to backward classes but such promises were never fulfilled. 8. Colleges did not follow the instructions given by the Government of Maharashtra, did not maintain a roster and did not follow the procedure regarding the reserved posts as laid down by the Government of Maharashtra. 9. There was a backlog of the backward classes in a majority of colleges. However, no pressure or persuation, direct or indirect, was exerted against these colleges either by the Government of Maharashtra or by the Marathwada University authorities. 10. There was no system of taking a yearly review of the situation and exerting direct pressure against the defaulting institutions. No serious action was taken against colleges for not maintaining the prescribed percentage of backward-class teachers on the college staff. 11. It was only after the establishment of a special cell in the Marathwada University that some attention was devoted to the implementation of the reservation programme.

1217. CHAUHA, C.S., *A Study of the Characteristics of Innovative Educational Administrators of Gujarat State*, Ph.D. Edu., SPU, 1983

The objectives of the study were (i) to identify the characteristics of innovative educational administrators, (ii) to study the various characteristics like administrative effectiveness, communication ability, innovative proneness, political orientation, decision-making ability and planning ability of innovative educational administrators, and (iii) to identify the factors affecting their innovative ability.

For studying the innovative characteristics of eduational administrators, the Q-sort technique was adopted for preparing the tool. The tool was prepared keeping in view the three main and eight sub-factors. The main factors were communication, administration and personality. The sub-factors were ability, responsiveness, decision-making, planning, and four aspects of personality, viz., democratic, creative, loyal and realistic. The construct validity of the tool was established by seeking the opinion of the experts in the field. The factorial validity of the tool was also established. The reliability of the tool by the test–retest method ranged from 0.65 to 0.86. The data were collected from 40 educational administrators from Gujarat State.

The major findings were: 1. The innovative educational administrator was willing to participate in community affairs, possessed risk-taking behaviour, had self-confidence, ability to recall and was willing to expose himself to interpersonal communication. He was self-reliant, honest, enthusiastic, self-disciplined, openminded, an initiator, emotional, accurate and judicious in approach. He could evaluate himself in comparison to others, had a sense of equality and faith in voluntary cooperative action, had self-understanding, appreciative attitude, ability to convince and ability to represent. He believed in expressing his views and could mobilize human resources. 2. The second factor-array (positive end) represented characteristic descriptions of eight innovative administrators. The traits were ability to take intelligent decisions, to reason, to analyse and to solve problems. Impartiality, self-knowledge, sincerity in work, ability to make a choice from among suggestions received from others, politeness, responsiveness to new suggestions, adjustment ability, awareness of innovations, willingness to expose himself to mass media, desire for self-improvement and a positive attitude to experimentation were other traits. 3. The second factor-array (negative end) represented characteristic descriptions of six innovative administrators. The characteristics were open-mindedness, ability to identify problems and solve them, ability to convince, self-expressive, earnestness in approach, honesty, pragmatic approach, high morality and flexibility. 4. The third factor-array (positive end) represented characteristic descriptions of seven innovative educational administrators. The traits were promptness, effective execution ability, a positive attitude towards profession, responsiveness to knowledge, technology and action, a desire to serve people, patience and belief in decentralization. The third factor-array (negative end) represented characteristic description of six innovative educational administrators . 5. The personality attributes of innovative educational administrator were ability to supply new ideas, ability for comprehensive observation, ability to diffuse new ideas, ability to deal with abstracts, open-mindedness, ability to adjust, frankness and belief in fostering public rela-

tions. Besides this, it was found that 36 out of 40 innovative educational administrators got new administrative ideas. Only four could not suggest that they did some thing innovative. Fourteen out of 40 did not get excited when they got an innovative idea while 12 felt excited and the remaining felt excited sometimes. Twenty-eight out of 40 subjects never felt helpless in the context of new administrative ideas, while eight educational administrators sometimes felt helpless in the context of new administrative ideas.Thirty-nine out of 40 encouraged critical thinking and only one did not encourage criticism. Thirty-two out of 40 encouraged free flow of criticism, five sometimes encouraged while three did not encourage the free flow of criticism on administrative decisions. Thirty-six out of 40 innovative administrators initiated, sponsored and assisted research and investigation, only four did not encourage research. Thirty of them were not guided by political forces. Seven of them sometimes felt guided by political forces, while three were guided by political forces. These factors showed that innovative educational administrators were generally optimistic and realistic in their dealings.

***1218.** DAS, J.C., *A Study of the Administration of Examinations of the Board of Secondary Education, Assam, with special reference to the Impact of the Reform Introduced since 1976 on the Conduct of HSLC Examination,* Ph. D. Pol. Sc., Gau. U., 1987

The main aim of the research was to study and highlight a comprehensive picture of the administration of examinations of the Board of Secondary Education, Assam, with special reference to the impact of reforms introduced since 1976 on the conduct of the HSLC examination.

About 20,000 answer books in four high school subjects of HSLC examinees conducted by the Board of Secondary Education (Assam) in 1980 were revaluated and marked again under experimental conditions by 45 experienced examiners under the Board who had been teaching these subjects in schools. A questionnaire was used with key personnel responsible for conducting the Board examinations. Relevant information on administration of education was collected from government documents and literature. Personal discussions with concerned officers were undertaken. The study followed the 'single examination, two examiners' model with necessary modification. Mean, SD, correlation, standard error of measurement, etc. were used.

Some of the major conclusions were: 1. The administrative machinery of the Board was ill-equipped to implement the reforms introduced in examinations conducted by it. 2. The Examination Reforms Programme of the Board was modelled on the NCERT's thinking. 3. The Board, while introducing the reforms in phases, failed to effect corresponding changes in its administrative set-up. This explained in part at least, the failure of reforms introduced to produce any tangible impact. 4. It appeared that the Board was a governmental agency to achieve certain non-academic ends at the cost of academic ones. 5. Government had made no rule under the Assam Secondary Education Act (1961) for proper conduct of the Board's business. The Board did not feel any necessity to make any regulation to carry out various activities towards achieving the Act's purposes. 6. There was inadequacy in the Board's administration of examinations in implementing properly the reforms to produce the desired impact. The scrutiny appeared to be a farce and very costly, indicating complete lack of supervision and monitoring. 7. Certain serious defects in the scales used by examiners in marking examinations were marked. There was need of immediate overhauling of the Board's administration of examinations.

1219. DAS, M., *A Study of the Administrative Behaviour of Secondary School Principals in relation to Selected School Variables,* Ph. D. Edu., MSU, 1983

The major objectives of the study were (i) to study the secondary school principals' administrative behaviour (frequency and effectiveness ratings) in relation to teachers' attitude toward work and work setting of the institution, school climate, and student achievement, (ii) to study the relationship between teachers' attitude toward work and work setting of the institution and student achievement, and (iii) to study the relationship between school climate and student achievement.

The sample of the study consisted of 26 principals, 260 teachers, and 1020 class IX students of 26 English-medium secondary schools from Gujarat State and Daman in the Goa, Daman, Diu Union Territory. The instruments used for the study were the Principal Performance Description Survey developed by the University of Georgia (1973-77) and modified by the inves-

tigator, the Teacher Attitude Inventory (Ellet and Masters, 1977), and My School Inventory for measurement of school climate (University of Georgia, 1974). The data were analysed with the use of descriptive statistical techniques, Pearson's product-moment correlation, t-test, rank-difference correlation, and the Mann-Whitney 'U' test.

The major findings of the study were: 1. The secondary school principals were moderately effective in their performance of administrative tasks. 2. There was significant positive relationship between principals' administrative behaviour and teachers' attitude toward work and work setting of the institution. 3. There was no significant relationship between principals' administrative behaviour and the climate of their schools. 4. There was no significant relationship between principals' administrative behaviour and students' achievement. 5. The teachers manifested most favourable attitude toward supervisory relations as compared to administrative policies and support, staff relations, work load, and student evaluation practices. 6. There was no significant relationship between teachers' attitude toward work and work setting of the institution and student achievement. 7. There was no significant relationship between school climate and students' achievement.

The major educational implications as stated in the study are: (1) School principals should perform their various administrative tasks adequately and effectively to ensure teachers' favourable attitude toward their work and work setting of the institution. (2) There should be facilities for in-service training programmes for school principals to make them efficient in various administrative tasks.

1220. DAVE, S.K., *An Investigation into the New Dimensions of Basic Education*, Ph. D. Edu., Guj. U., 1980

The study was taken up to investigate the causes of decay of basic education and search for new modes that would reinforce basic education and make it meaningful and functional in the context of modern society.

A pre-pilot questionnaire of 40 items was distributed amongst 50 eminent educationists and the responses were analysed. A pilot questionnaire of 20 check-list type items was prepared and given to another ten eminent educationists to get the weightage of each question or statement. A number of suggestions were received. Taking all these responses into account, a final questionnaire of 20 items was evolved. To get comprehensive views on the present status of basic education, 600 questionnaires were distributed among five groups, namely, student-trainees (N180,) heads of high-schools (N=150), social workers, leaders, basic teachers (N=120), teacher educators (N=150), and government administrators (N=100). However, only 258 respondents returned the questionnaire duly filled in. The data gathered from the questionnaire were duly analysed and various dimensions of basic education—philosophical, academic, social, economic, vocational and psychological were discussed.

Major conclusions drawn from the study were: 1. The majority of the respondents (87 per cent) opined that the system of basic education had failed to satisfy the needs of the present age. 2. Students, heads of high schools and teacher-educators (91 per cent) condemned the present system of basic education more harshly than basic teachers, social workers, leaders and government administrators. 3. The main reasons for failure of basic education were prejudice in so-called sophisticated society, a dearth of committed followers, stress only on spinning and weaving as craft, rigidity of approach, and misinterpretation of the correlation between work and subject teaching. 4. Fifty-five per cent of the respondents suggested continuance of the same name pattern of basic education after some changes in the system. However, a new name, 'Life Education', was suggested as a better description of the system. 5. Major changes suggested in basic education were introduction of an appropriate, socially useful craft linked with productivity, review of the aims and objectives of basic education, a rational curriculum and evaluation and introduction of English and Sanskrit.

1221. DEANE, S.A., *Techniques of School Evaluation and Follow-up Procedures, with a view to Improving the Policy, Programme, Personnel and Plant*, Ph.D. Edu., Bom. U., 1985

The aims of the study were (i) to study school evaluation and follow-up procedures, (ii) to find out which methods of self-evaluation, good schools used to judge their own efficiency, (iii) to evolve more efficient and effective techniques of evaluating various aspects of the school system, (iv) to suggest follow-up procedures that would ensure improvement and change in the school system and also uphold staff morale and enhance un-

derstanding of one's own work in the school, and (v) to provide suggestions for school administrators to get fresh insights into traditional school practices and procedures, thus helping them to modify outmoded practices or replace them by more relevant programmes.

The method of systematic random sampling was used for the selection of the sample. The data were collected by means of two schedules entitled Enquiry Form Number 1 and Enquiry Form Number 2, a questionnaire on 'Better School Management' and workshops for school heads on the systems approach to school management. All the techniques used in this study were developed by the author. The practical aspects were best studied by performing quasi-experiments in action research situations. The more subtle and elusive aspects of school evaluation were studied through conducting case studies, seminars, observation and interviews. The sample was selected from 1426 high schools from four states of India and three selected foreign countries, viz., the German Democratic Republic, England and the USA. Out of 1400 Indian schools, only 196 responded. Out of 26 foreign schools, only 15 responded. The data were analysed and interpreted by using Sign Test, t-test and the Kendal Rank Correlation Coefficient.

The major findings of the study were: 1. Among the Indian schools in the sample which responded to the enquiry, it was found that very few had any well-defined schemes of self-evaluation. At best, evaluation was fragmentary or, if carried out purposefully, it was only done once in a blue moon. 2. In the American schools studied, a clear system of school evaluation existed but there appeared to be a sense of disillusionment among the school personnel at its efficacy and disenchantment with its formal, technical nature. 3. The state schools in the German Democratic Republic were found to be victims of a bureaucracy that stunted any effort in the direction of self-improvement. 4. In England, each school was unique in its management practices, and school evaluation was the concern of responsible individuals working in each school. 5. The study revealed that effective school management was only possible in an atmosphere of freedom, where the school personnel themselves carried the responsibility for creating a good school. 6. It was found that evaluation carried out by external agencies did little to improve a school. 7. It was found that follow-up and improvement of a school system and its sub-system depended solely on the nature of leadership in the school. 8. A case study of an Indian school revealed that there was no well-defined evaluation programme in evidence in any department, but the principal explained that an ex-principal of the school was sometimes invited to inspect the school.

*1222. DEVI, B., *The Changes in Secondary Education in Assam from 1964 to 1974 and their Influence on Higher Education in the State*, Ph.D. Edu., Gau U., 1987

The main aim of the study was to see how the changes brought about in the level of secondary education in Assam during 1964 to 1974 influenced higher education in the state. The study was expected to bring to light some of the deficiencies of secondary education in Assam as a result of introducing reforms at that level which had led to the deterioration in the quality of higher education of a general nature. Three hypotheses were examined.

Field work and library work were done. Both primary and secondary sources data were used. Personal interviews with selected persons were undertaken. Two sets of questionnaires were used—one for students to get a picture of their vocational aspirations; the other, consisting of two parts, was addressed to such persons as had a direct share in implementing the change in schools and had personal experience of the effect of such changes. A number of higher secondary and multipurpose schools, both in rural and urban areas, where the new scheme of secondary education was implemented, were visited. A few secondary schools in different localities were also visited to administer the questionnaire. A sample survey was conducted to study the aspirations of secondary school pupils of Assam for different occupations in society. The sample included 100 male and 50 female pupils belonging to Xth year of secondary stage.

The major conclusions were: 1. A number of significant changes have been introduced in secondary education of Assam. 2. The changes were comprehensive and covered all aspects. 3. In spite of various changes introduced at the secondary stage regarding its structure, administration, teaching, curriculum and evaluation in the overalll context of the new emphasis on improving the quality of higher education, the quality of general higher education was, in general, deteriorating. 4. The numerical expansion of educational institutions had adversely affected quality at all levels. 5. Overcrowding in higher educational institutions of a genernal nature was still alarming, jeopardizing the educational atmosphere. 6. The quality of secondary education did not

improve as the reforms introduced could not be implemented fully and in the desired manner to promote individual capacities and social efficiencies of adolescents. 7. Wastage in higher education was still alarming. 8. The changes were much needed and well intended. But for lack of will, means and conscious efforts on the part of all who were vitally concerned with the process, the schemes did not fully succeed. One reform had been replaced by another just like conducting some experiment in a laboratory.

1223. DUTTA, M.K., *The West Bengal Board of Secondary Education,* Ph.D. Pol. Sc., RBU, 1981

The purpose of the study was to make an in-depth analysis of the West Bengal Board of Secondary Education, its origin and evolution to the present stage. In specifics, the main objectives were (i) to trace the historical evolution of the Board, (ii) to examine the constitutional status of the Board and its administrative set-up, (iii) to assess the problem of control—governmental, judicial and financial, and (iv) to study the syllabus, examination system, etc.

Materials for the study were collected from primary sources like different government documents, official correspondence, court proceedings and official reports and from secondary sources like journals devoted to secondary education, standard publications on secondary education in India and abroad. The interview method was also used mostly with retired officials of the Board; a questionnaire had been administered on a number of people who were in one way or other related to secondary education. It was a historical study written in descriptive, analytic language with occasional statistical tables. The location was Calcutta city.

The major findings were: 1. Though the idea of establishing a Board of Secondary Education was mooted in 1902, the Board was created only in 1951 to provide a distinct and better identity for secondary education. 2. Since its inception, the Board has been functioning on the basis of experiments, which have, on the whole, created uncertainties. 3. The Board has been in the grip of a bureaucratic system, and most of the members are nominated and are not conversant with the problems and prospects of secondary education. 5. There is no in-built mechanism to withstand political interferences in matters of school managing committee, their formation, functioning and life-span. 6. The structure, syllabus and examination system were revised in 1974 with undue haste and without preparation and without giving consideration to the needs and capacity of children and societal requirements. No proper step was taken for implementing the practical side of education and no work was done for building an infrastructure for work education. 7. There exists on curriculum and/or examination reform unit. 8. Reform of the controlling machinery should precede other changes, the appeal section should be reorganized, and chaos and corruption be rooted out. 9. The West Bengal board of secondary education (Amendment) Bill, 1979, was a step towards setting up a structure for democratization. 10. In fine, the policy and practices of the Board were not in the past in keeping with the socialistic society that India aspires to build.

1224. DUTTA, M.L., *Education and Employment of the Tea Garden Labourers of Assam with special reference to the District of Sibsagar,* Ph.D. Edu., Gau. U., 1985

The main objective of the research was to study the problems of education and employment, their interdependence, in relation to the tea garden labourers of Assam. Twelve different hypotheses were examined.

The normative survey method was adopted. Both primary and secondary sources were used to study several aspects pertaining to education and employment of the tea plantation labourers. Twenty-three tea gardens (six from Golaghat, nine from Jorhat and eight from Sibsagar) were selected randomly with some stratification. From each garden 25 labour households were randomly selected and interviewed. Garden school headmasters and authorities and 130 randomly selected unemployed persons and 77 students in gardens were also interviewed. Five schedules (for headmasters of tea garden schools, heads of the tea garden labour families, tea garden authorities, school-going children of tea labourers beyond the primary stage and unemployed persons of the labourer community) were prepared and used. Data were also collected from census handbooks, records, etc. Both qualitative and quantitative analyses were done.

The major findings were: 1. The tea garden labourers were in very backward condition educationally, economically and socially. They were far away from the socio-cultural main stream of the state mainly due to their socio-cultural isolation, economic backwardness and exploitation by gardern owners. 2. Education was

in a very neglected state in the tea plantations. 3. There was inadequacy of educational facilities beyound the primary stage within the gardens. This impeded the spread of education beyond that stage among labourers. 4. Tea garden schools lacked all essential facilities and academic side too was very much neglected. The schools were very unattractive. The system had failed to achieve the goal of primary education. Several reasons like indifference and negligence of parents, teachers, garden and state authorities were mainly responsible for this state of affairs. 5. The working and living conditions of labourers were very poor. The unemployment problem was increasing among labourers due to factors like population growth, lack of education, effect of technological change, mobility, limited scope for alternative employment, retirement and termination, strikes, economic weakness of the gardens. Employment avenues outside the gardens were limited for various reasons. 6. 73.04 per cent of the respondents expressed unwillingness to undergo training for any new occupation due to lack of education, limited aspirations and lack of mobility.

*1225. GAUR, A.K., *Comparative Study of the Role of Head of the Department in the Universities of Rajasthan*, Ph.D. Edu., M. Sukh. U., 1984

The main objective of the investigation was to study the perceived and conceived roles of the departmental heads and the teachers of the universities in Rajasthan, and to compare the roles of heads and teachers.

The sample consisted of three universities of Rajasthan. In all, 71 heads and 264 teachers were included in the sample.

The major findings were: 1. In the academic area, the conceptions and perceptions of departmental heads and teachers were highly in favour of libarary and laboratory facilities. Their perception of work was satisfactory. 2. In curriculum framing, the conceived role of the heads was favourable but the perceived role was not satisfactory. The conceived role of Udaipur teachers was average and their perception was satisfactory. 3. Regarding academic services to different university bodies, the conception of all heads and teachers was satisfactory. The perception scores of Udaipur and Jodhpur teachers were higher than the perception scores of teachers of Rajasthan University. 4. The conception of the heads of Jodhpur University regarding the departmental bulletin was very high whereas that of the heads from Udaipur and Rajasthan universities was average. Perception of heads and teachers in this area was satisfactory. 5. The Jodhpur University heads conceived their role regarding organization of academic activities as very high. Their perceived role in this area was satisfactory. The teachers perceptions of this field were average. 6. Both the conceived and the perceived roles of heads and teachers regarding coordination of departmental activities were satisfactory. The same was the case regarding leadership quality.

1226. GOSWAMI, D.H., *University Administration in North-East India*, Ph.D. Arts, Gau. U., 1980

The main purpose of the research was to study the development of higher education and important aspects relating to university administration in North-East India.

Necessary data were collected from various sources like university offices belonging to the region, the UGC, and the Education Department of the Government of Assam. Personal experience was an abiding source of information. The opinions and conclusions stemmed directly from the needs and demands of the authorities of the universities, their students, teachers and other employees.

They study revealed that, till the turn of the first half of the twentieth century, the extent and quality of education in the North-Eastern Region of India was woeful, to say the least. After prolonged and back-to-the-wall endeavours, the Gauhati University was established in 1948, which was quickly followed by the setting up of the Dibrugarh University, the Assam Agricultural University and then the North-Eastern Hill University. From the latter half of this century, education in this region had made rapid strides. Education had made quantitative progress but unfortunately qualitatively it was weak. However, expansion of education has inspired the society to act dispassionately, to vote intelligently to a large degree. It has further brought about a respect for cultural and literary excellence, a rejection of superstition and admiration of scholarship. Education had the intrinsic value of inculcating in the minds of the receivers the ability to perceive a richness in leisure as well as in work, an understanding of the past, and of transmitting a sense of human decency and compassion to new generations and a will to preserve freedom and independence, whatever might be the cost. To a very large extent, the rapid expansion of education made it possible

for the people to get out of the age-old rut of acute economic crisis. It led to better social and moral life, better food production, family planning and perceptible expansion in industries. To that extent it was able to satisfy the basic need for a better life. But an enormous task remained for educational planners and administrators to make education really meaningful and purposeful so that higher education could become a growth industry.

1227. GUPTA, A.K., *Validation of the Concept of Institutional Environment in Jammu City Schools: A Pilot Study,* MIER, Jammu, 1984 (ICSSR financed)

The objectives of the study were (i) to study whether a construct of institutional environment really existed in the Indian school settings, (ii) to identify the basic components underlying the construct of institutional environment, (iii) to prepare a functional schedule for participant observation, capable of devising a summated picture of institutional environment at the school level, and (iv) to validate the concept of institutional environment in the Indian school setting through the case-study method.

A sample of 300 students of the 8th, 9th and 10th classes was drawn from ten high/higher secondary schools which represented a cross-section of the student population of Jammu City. Further samples of 100 parents, 100 teachers, 25 experts and 25 administrators were selected to collect data regarding components or dimensions of institutional environment of a school. For participant observation, ten schools and for case-studies three schools were selected. The research tools used were questionnaires to elicit information on dimensions of institutional environment, an observation schedule for participant observation, and guidelines for case studies. The statistical techniques employed were frequency counts, frequency distributions, measure of central tendency, standard deviation and Scott's coefficient to determine inter-observer reliability.

The major findings were: 1. According to students, discipline, staff qualifications, facilities provided like playgrounds, games, laboratory, teaching methods and the school principal were significant dimensions constituting institutional environment. Students, as a group, were able to attribute institutional differences to differences in their institutional environment. Certain dimensions like control, monthly tests, fees, rewards and punishments were not perceived as important by them as compared to other dimensions like educational facilities, staff and discipline. Library and laboratory were found to form a significant sub-system for the formation of institutional environment. 2. According to experts, administrators, teachers and parents, there was something within the institutions which resulted in differences in the educational outcomes of the students. In their opinion, significant differences existed between single sex and coeducational schools, between urban and rural, between government and private schools with regard to facilities available, financial aid, staff qualifications, involvement of parents, teachers and students, workload, political influence and job security respectively. School building, library, laboratory, playfield, staff qualifications, nature of head, administrative functioning and discipline were significant factors upon which the institutional environment of a school was likely to depend and teaching staff, teaching methods and educational facilities provided in a school were the most important factors from the point of forming the institutional environment of a high school. 3. On the basis of participant observation of schools, it was found that differences in the environment of high/higher secondary schools depended primarily upon nine factors, namely, school building, classroom, library, laboratory, sports, school functions, communication between the head and the staff and internal noise respectively. 4. The differences in the learning environment of high schools in Jammu City were found to be determined by six factors, namely, recreational facilities, principal and qualities of the staff, pupil-pupil interaction, staff involvement, and external noise. 5. The admission procedure, discipline, curriculum, examination system, leisure-time activities, use of aids and school motto were considered to be 'core dimensions' for the formation of institutional environment. 6. Participant observation yielded sufficient information to establish construct validation of the schedule by reinforcing the perception of teachers, students, parents and administrators. 7. The case-studies provided sufficient validation of the construct of institutional environment by showing results which were similar to those from participant observation.

1228. GUPTA, T.R., *A Comparative Study of Student Welfare Programme in the States of Punjab and Himachal Pradesh,* Ph.D. Edu., GNDU, 1986

The objectives of the investigation were (i) to study the

student welfare programmes in the colleges of Punjab and Himachal Pradesh, (ii) to compare the student welfare programmes of the two states, and (iii) to prepare information for future students regarding the types of student aids available in the colleges. The hypotheses of the study were: (1) In both the states (Punjab and Himachal) students welfare is an activity run by the state. (2) The majority of the student welfare programmes are of a financial type. (3) Some programmes like, NSS and Book Bank are popular and benefit the students. (4) Students do not participate in cocurricular activities and have a negative attitude towards these. (5) Favouritism prevails in the students welfare programmes where finances are concerned.

The study was a historical survey. It was historical as documents like records from the state department of education, state finance ministries, and university offices were consulted. It was a survey study because data were also collected with the help of eight different questionnaires from 15 colleges of Punjab and six colleges of Himachal Pradesh. The first questionnaire was for heads of institutions, the second for students enjoying financial benefits, the third for students enjoying non-financial benefits, the fourth was for students who did not participate in any activity, the fifth was for parents of the students, the sixth was for deans of students welfare, the seventh was for programme coordinators of NSS and the eighth was for the directors of physical education.

All these questionnaires were concerned with collecting information about different types of student welfare programmes and their usefulness to the student community. The sample of the study consisted of 21 heads of institutions, 120 students enjoying financial benefits, 140 students enjoying non-financial benefits, 150 non-participant students, 25 parents, 12 deans of students welfare, 21 programme coordinators and directors of physical education.

The findings of the study were: 1. In case of merit scholarship, the position of the state of Punjab was fairly higher than that of Himachal Pradesh. In Punjab, percentage of students who got merit scholarship ranged from 0 to 34 per cent, whereas in Himachal Pradesh it was around two per cent. The average amount of scholarship in Punjab ranged from Rs. 299 to Rs.1650 annually; in contrast the average amount of scholarship in Himachal Pradesh ranged from Rs. 175 to Rs. 750 annually. 2. The colleges in Himachal Pradesh had a lead over the colleges of Punjab in the case of benefits other than merit scholarships. The average annual expenditure per college on such benefits in Punjab was only Rs. 468 while in Himachal Pradesh it was Rs. 692. 3. The data revealed that in both the states, the majority of students were not in favour of loans. Only three students from the Punjab sample enjoyed a loan and only one student from the Himachal Pradesh sample did so. 4. In the case of providing full fee concession to bright students, the colleges in Himachal Pradesh were far behind those in Punjab. But as far as poor students were concerned, Himachal Pradesh colleges spent more on fee concessions to poor students than the colleges of Punjab. 5. The data also revealed that Red Cross aid did not attract many students in either of the states. This facility was avilable only in three out of 15 colleges in Punjab and one out of six colleges in Himachal Pradesh. 6. In the colleges of Punjab, the facility of free books was enjoyed by a large number of students. Their percentage varied from 0.7 to 0.38. In the case of Himachal Pradesh the facility of free books existed only in two out of the six sample colleges. Only a few students availed of this facility. 7. The student welfare programme of medical aid stood neglected in the colleges of both the states. 8. In both the states, the National Service Scheme attracted a large number of students. It existed in all the sample colleges. The percentage of participants in the scheme in Punjab was 54 and in Himachal Pradesh it was 44. But the per capita expenditure on this scheme was more in Himachal Pradesh than in Punjab. 9. In the case of youth festivals, Himachal Pradesh colleges appeared to have a lead over the Punjab colleges, but the amount spent on these was more or less equal in both the states. 10. In colleges of both the states very few handicapped students came forward for college education.

***1229.** HATIBARUAH, K., *Educational Programme for Community Living with special reference to Community Development Blocks of Kamrup District,* Ph.D. Edu., Gau. U., 1987

The main aims of the study were (i) to find out the impact of programmes and practices in operation (developmental programmes in general and educational programmes for community living in particular) in the Community Development (CD) Blocks of undivided Kamrup district of Assam, (ii) to make a content analysis of their impact on community life, and (iii) to formulate some remedial measures for a healthy and harmonious community living.

A regional-level analytical study was conducted.

Both primary and secondary sources were used. An intensive field survey was made. Twenty-nine sample villages were randomly selected from 50 per cent of the CD Blocks in Kamrup district. A multi-stage sampling design was followed. Questionnaires, interview and observation schedules were used. The estimation procedure adopted was one of ratio estimate.

The study mainly revealed: 1. There had been a visible impact on the life-style of rural population in CD Blocks of Kamrup district due to implementation of various educational and other related programmes by the state government over the past three decades. 2. People's awareness had increased significantly. There was an increasing consciousness on the part of weaker segments of society. 3. The impact of education on community living was manifested in a variety of ways. 4. There had been a noticeable change in the outlook of people, their attitudes to life and ways of living, their behaviour pattern, adjustment to environment with a sense of belongingness and participation in activities for the common benefit of the community. 5. Increasing awareness of the community was also reflected in various other ways. 6. Family planning programme did not appear to have made any visible impact on the rural population in reducing family size. 7. Though some changes were noticed in occupational pattern, agriculture continued to dominate rural economy. 8. Rural people generally expressed their willingness to extend cooperation in implementing development programmes. 9. There was need for modifying and simplifying the implementation process.

1230. JOSHI, H.O., *A Study of the Working of Tuition Classes and Their Social Utility,* Ph.D. Edu., Sau. U., 1985

The objectives of the study were (i) to study the organizational structure of tuition classes, (ii) to study the physical facilities available in tuition classes, (iii) to study the educational facilities of tuition classes, (iv) to study the type of students taking interest in tuition classes, (v) to study the causes of rapid growth of tuition classes, (vi) to measure the attitude of the teachers towards tuition classes and (vii) to evaluate the academic excellence of tuition class students.

The sample consisted 48 tuition classes out of 80 classes spread over the district headquarters of the Saurashtra region. The sample drawn from schools had 5,081 students. Of them, 3,231 were tuition class students and 1,850 were non-tuition-class students. In all, 665 teachers of 37 schools and 40 owners of tuition classes were also included in the sample. The tools used and developed were, (a) an observation schedule of tuition class, (b) a data-sheet for tuition-class and non-tuition-class student, (c) an interview schedule for the owners of tuition classes, and (d) an attitude scale for teachers. Information regarding the working of tuition classes was analysed qualitatively. Chi-square was used to identify the variables related to tuition-class students and non-tuition-class students. The critical ratio was calculated to determine the significance of the difference of means of the attitude scores of different groups of teachers and the academic excellence of tuition-class students.

The major findings were: 1. The organizational structure of most of the tuition classes was of a proprietory type, run with the motive of monetary gain. 2. No attraction was provided by the tuition classes in the form of physical facilities. 3. It was found that an effective way and style of imparting instruction, giving notes, regular coaching and drill work prevailed in the tuition classes. 4. More girls, non-local students, second class and pass class achievers, and groups of very high, poor and very poor achievement level students attended the tuition classes. 5. More tuition-class students were from (i) average profession and unskilled labour families, (ii) above average, average and below average income holder families, (iii) highly educated families, (iv) families with average, negligible and no insistence on study from father/guardian, as compared to non-tuition-class students. 6. The importance of public examinations, difficult syllabus, costly private coaching, school holidays, and lack of assurance of completion of courses in schools played a significant role in the growth of tuition classes. 7. The attitude of teachers towards tuition classes was not favourable. 8. No significant difference was found between the average achievement score of tuition-class students and non-tuition-class students of Rajkot City at their previous public examination.

1231. KHAN, M.A.A., *Osmania University—A Study in Governance and Administration,* Ph.D. Pub. Adm., Osm. U., 1975

The objectives of the study were (i) to study the development of Osmania University in historical perspective, (ii) to study the objectives and functions of Osmania University, (iii) to study the administrative structure of

Osmania University, and (iv) to study the change in administrative set-up of the University after its inception.

The study was made on the basis of facts available in the records and archives of the Government of Andhra Pradesh, university library, the office of the registrar and principals of colleges. Besides these the royal decrees of the Nizam, the acts with amendments, statutes, ordinances and regulations of the university were also studied and analysed from the constitutional and administrative point of view.

The findings of the study were: 1. Osmania University was established in 1918 by the Nizam VII, the then ruler of Hyderabad. It became a creature of the Andhra State Legislature in 1959. 2. The objectives, powers and functions of the University, the nature, range and the role it had to play in fulfilling, the needs of the community, had been laid down in the University Act. 3. To perform the variety of its tasks in meeting its varigated responsibilities for the fulfilment of the objectives it had been set, the University was given an organizational structure by an act of the state legislature. 4. The University operated through five authorities—the senate, the syndicate, the academic council, faculties and the boards of studies. 5. The distribution of seats amongst different classes had not been done on a rational basis. 6. The Act of the University was silent on the position of the senate. However, by practice it had been given the highest authority. The syndicate was the compact executive body dealing with all continuing matters of academic, administrative and financial nature. Its central power was the making of ordinance which gave it the control over academic and financial management of the university. 7. The academic council consisted mainly of academicians who were at the higher level of academic ranking coordinating activities of academic bodies. 8. The number of faculties remained static over a period of years, though the number of departments increased from time to time. 9. The chancellorship of Osmania University was first conferred on Ministers, then the Chief Minister and, from 1959 onwards, on the Governor. The chancellor symbolized the headship of state and the University. He had a crucial role in university affairs. His most important power was with regard to appointment and removal of the vice-chancellor. Though ostensibly the vice chancellor was his choice, in actual practice he was the choice of the Chief Minister. 10. The chancellor gave his assent to the statutes and ordinances. 11. The pro-chancellor was nominated by the chancellor for a period of five years. He presided over meetings of senate and convocation in the absence of the chancellor. 12. The main officer of the university, around whom authorities and officers revolved, was the vice-chancellor. He was also the chairman of executive authority—the syndicate, and the senate. The chairmanship of the finance and selection committees was also conferred on him. He was the connecting link between the administrative and academic wings of the University. As regards his external role, he represented the University before the University Grants Commission, the Ministry of Education and the State Government. 13. The vice-chancellor was academic leader, administrative leader and fiscal manager of the University. 14. On account of the tremendous increase in enrolement, size of the faculties, budget and administration, the influence of the vice-chancellor had declined in educational programming. 15. In the realm of student affairs, the concept of *in loco parentis* was dead, the paternalist status of the vice-chancellor was extinct, and he was no longer a teacher; consequently his contacts with the students were limited. 16. The main administrative officers of the University were principals and the registrar. 17. The main academic officers were deans and heads of departments. The principal was a key functionary in the colleges in the University and its constituent colleges. A dean's appointment was for three years on a rotation basis and he was the highest academic adviser to the vice-chancellor. 18. The head of the department exercised academic powers under the supervision of the vice-chancellor. In the academic domain he distributed work among the staff, provided opportunities for research to the teachers, approached external agencies for support of projects. He was an academic and administrative officer with loyalty to the department as a teacher.

1232. KHUSHDIL, N., *An Investigation into the Mutual Role Expectations and Actual Role Perceptions of the Principals and Teachers of Senior Secondary Schools of Delhi*, Ph.D. Edu., JMI, 1985

The objectives of the study were (i) to devise an instrument for measuring teachers' expectations of principals' role and to measure the same, (ii) to measure the school principals' perceptions of their teachers' expectations, (iii) to devise an instrument for measuring the principals' expectations of teachers' role, (iv) to measure the teachers' perceptions of their principals' expec-

tations of teachers' role, (v) to explore whether the teachers' expectations of principals' role were dependent upon the teachers' qualifications and/or their experience, (vi) to explore whether principals' perceptions of teachers' expectations of principals were dependent upon principals' qualifications and/or experience, (vii) to explore whether principals' expectations of teachers' role were dependent upon the principals' qualifications or their experience, (viii) to explore whether the teachers' perceptions of principals' expectations of teachers' roles were dependent upon their qualifications and/or experience, (ix) to find if there existed differences between the mutual expectations and perceptions of the roles of teachers and principals, and (x) to find out whether there were differences between role expectations and role perceptions of male and female teachers and principals.

The tools used in the study were two separate inventories prepared by the investigator to measure the role expectations of principals by teachers and the principals' perceptions of expectations of teachers. The first inventory was termed the Teachers' Expectations of Principals (TEP) Inventory. This inventory covered the following areas of the functions of teachaers:(a) teaching–learning activities; (b) cocurricular activities; (c) administrative activities; (d) self-development activities; and (e) public relations activities. The second inventory was termed the Principals' Expectations of Teachers (PET) Inventory. This inventory covered the following areas of the functions of principals: (a) purposing, (b) planning, (c) organizing, (d) implementing, and (e) evaluating. A personal data sheet was also used for collecting information about the subject's qualifications and experience. Four hundred and fifty teachers and 60 principals constituted the sample. Bar diagram and critical ratio were used for data analysis.

The major findings of the study were: 1. Both teachers and principals regarded the democratic role as the most important one. Next came the patronizing role followed by the disciplinarian and authoritative roles. 2. The means of scores on principal's expectations and teachers' perceptions were found to differ significantly. 3. Principals' desire of the teachers to play the disciplinarian role was more than what the teachers liked to play. 4. Principals' perceptions of the authoritarian role were higher than the teachers' expectations. 5. A very small difference existed between the principals' expectations and teachers' perceptions of the cooperative role. 6. There was no difference between principals' expectations and teachers' perceptions of the summative role. 7. The principals expected the teachers to play an indifferent role, more indifferent than teachers liked .8. The principals gave highest priority to the cooperative role, next came the critical role. 9. The teachers' quality point was found negatively and significantly related to their experience. 10. The correlations between the democaratic role and the disciplinarian, patronizing and authoritative roles were negative and highly significant. 11. The quality point of principals was not significantly related to any of the four roles, namely, the democratic, disciplinarian, patronizing and authoritative roles. Principals' experience was also not related to any of these roles. Principals' experience was also not related to any of these roles. 12. The democratic role of principals was significantly related to the disciplinarian, patronizing and authoritative role and the cooperative role was negatively related to the submissive role. 13. The quality point of teachers was independent of their perceptions of principals' expectations. 14. No difference was found between expectations and perceptions. 15. Teachers' expectation was not influenced by their quality point or by their experience. 16. Principal's expectations of teachers were independent of their qualifications and experience. 17. Sex was not a factor of teachers' expectations of principals. 18. The female principals perceived their teachers to expect them to play the patronizing role more than the male principals. The male principals expected their staff to be more submissive than did the female principals. 19. Male and female teachers' perceptions of principals' expectations on all the four roles were the same.

1233. KONGRIMAI, MARY P., *A Study of Adaptability of Secondary Schools in Meghalaya*, Ph.D. Edu., MSU, 1984

The objectives of the study were (i) to find out the characteristics of school principals promoting schools adaptability, (ii) to identify teacher characteristics contributing to the promotion of school adaptability, (iii) to study the community factors influencing school adaptability, and (iv) to find out the extent to which each variable explained the process of adaptability.

The sample selected for the study comprized all 97 secondary schools of a minimum of ten years standing in the state of Meghalaya. The tools consisted of a special instrument to measure school adaptability constructed by the investigator, the Change Proneness Inventory developed by Mukhopadhyay, the Leadership

Behaviour Descriptive Questionnaire developed by the Personnel Research Board of Ohio State University, the Teacher Morale Inventory by P.Dekhtawala and two questionnaires respectively for principals and the teachers. The t-test was used to examine various hypotheses and step-wise regression analysis for finding the predictors of school adaptability.

The major findings of the study were: 1. The variables found to differentiate between schools with high adaptability and those with low adaptability were inter-school visits of principals and teachers, professional meetings attended by principals and teachers, principals' and teachers'cosmopoliteness and change proneness, teacher morale and parental involvement. 2. Multiple regression analysis identified eight variables, viz., teacher morale, parental involvement, professional meetings attended by teachers, change proneness of the principal, principals' feeling of security, teachers inter-school visits principals' cosmopolite behaviour and principals' consideration behaviour as significant correlates of school adaptability and explaining the variance in the criterion scores to the extent of 37 per cent. Those schools where the principals participated in educational seminars at different levels, visited innovative schools and studied improvement programmes, were likely to accept new ideas and new programmes without much resistance. The management and the principal should see that teachers' morale was kept at a high level. Teachers should be encouraged to participate in district, state and national-level continuing education programmes.

1234. KRISHNARAJ, R., *Organisation Structure, Leadership Behaviour and Decision Making in Autonomous and Affiliated Colleges,* Ph.D. Edu., Madras U., 1987

The main objective of the study was to compare the organization structure, leadership behaviour and decision-making in autonomous and affiliated colleges.

Organization structure was studied using the Structural Dimensions Questionnaire (SDQ) designed and validated by the investigator. SDQ consisted of six sub-scales, specialization, centralization, consultation, formalization, integration and autonomy. Leadership behaviour was studied by LBPQ (Leadership Behaviour Pattern Questionnaire) developed by the investigator. LBPQ measured 15 dimensions of leadership behaviour. Reddin's Role Expectation Scale was also used to measure the leadership behaviour of the heads of departments. Oxenfeldt's Decision Making Dimensions Scale (DMDS) was administered to measure the decision-making style of the principals. The study was based on data collected from 135 teachers working in six autonomous colleges and 270 teachers from 13 affiliated colleges. The affiliated colleges were randomly sampled and stratified according to the type of management, geographical location and composition (men, women). Descriptive, differential, correlational, factorial, discriminant and profile analysis were used for data analysis.

The main findings were: 1. There was more specialization in autonomous than in affiliated colleges. 2. Both types of colleges were highly formalized, but affiliated colleges experienced more breaches of formalization than the autonomous colleges. 3. There was a lower level centralization in autonomous colleges. 4. Consulting lower levels of hierarchy was higher and more frequent in autonomous colleges. 5. The departments of affiliated colleges were more autonomous than the departments of autonomous colleges. 6. There was no difference between the two types of colleges in leadership behaviour. The two types differed only in two dimensions. viz., representation and integration out of the 15 dimensions studied. 7. Principals in the two types of colleges differed in four dimensions of decision-making, viz., request advice, receptivity to advice, independence of judgement and explicitness of method.

1235. KUDESIA, U.C., *Utilization of Time in Different Activities by the Faculty of Government Polytechnic, Panji (Goa),* TTTI, Bhopal, 1986

The objectives of the study were (i) to identify the areas/activities in which teachers of Panji Polytechnic were engaged, (ii) to find out the proportion of time the teachers of Panji Polytechnic devoted in the identified activities, (iii) to identify the areas/activities contributing to effective teaching and the time devoted by the Panji Polytechnic teachers on them, and (iv) to identify imbalances in time devoted (if any) to the areas/activities contributing to effective teaching.

The study followed a descriptive survey approach. A questionnaire containing 69 activities and covering six broad areas of activities was supplied to all the teaching staff of Government Polytechnic, Panji(Goa).

The areas of activities were: academic, administrative, staff development and project work, games and sports, cultural and cocurricular, and other roles and responsibilities. Along with this, an interview schedule was prepared, which was intended for gathering information from the principal and heads of different departments of Panji Polytechnic on areas and activities in which they were engaged. Percentages and averages were computed to analyse the data.

The findings of the study were: 1. The maximum time of the polytechnic teachers was devoted to classroom teaching followed by conducting of laboratory work, managing a department or section, assessment of students and preparation for teaching and preparing assignments. The least time of the polytechnic teachers was devoted to hobby clubs, games, organization of educational exhibitions, fairs and demonstrations, organization of competitions for students and in organization of training programmes for supporting staff. They were not found to devote any time for activities like managing the library, hostel, garden, cooperative store, enhancing self qualification, organizing students' canteen, census work, providing social and community services and technical guidance, designing and fabricating new instruments for agricultural industry and for other areas of development. 2. The principal, heads of the departments and section in-charges were found to devote comparatively more time to administrative activities and less time to academic activities. The polytechnic in general was found to devote minimum time to cultural and cocurricular activities. 3. Among the administrative activities, the teachers were devoting their maximum time in managing the department or section and minimum time in managing the reprographic section and polytechnic/departmental stores. 4. Among the various activities pertaining to staff development and project work, the maximum time (0.4 hours per week) was devoted to the exchanging of ideas, thoughts, experiences and knowledge through discussions and minimum time (0.008 hours per week) to organizing training programmes for supporting staff in the area of staff development and project work. 5. The polytechnic teachers were also devoting their time for setting papers and evaluating answer books for board examinations (0.54 hours per week) and in general election duties (0.01 hours per week). 6. The mechanical department of the polytechnic was found to devote its maximum time on different activities of the polytechnic as compared to other departments. This was followed by the electrical department and civil engineering department. 7. Level of participation of different teachers of the polytechnic in different activities of the polytechnic was relatively poor. 8. All the heads of departments were of the opinion that there should be a provision requiring the devoting of maximum time on academic activities and minimum time on administrative activities on their part. They shared least interest in games and sports, but suggested devotion of some time to cultural and cocurricular activities and some amount of time to performance of other responsibilities. 9. The activities considered to be contributing to effective teaching were laboratory facilities, library resources, seminars and discussions, developing classroom resources, conducting tutorials and extra classes, use of media while teaching, and encouraging students' participation. 10. The student-teacher ratio varied from department to department. It was 36:1 (maximum) in case of the mechanical department and 20:1 in case of the civil engineering department. 11. It was observed that the contact time between students and heads of different departments in the polytechnic ranged from 9 to 16 hours per week. 12. A few barriers observed in the utilization of allotted time to different activities were the lack of academic facilities/resources, defective curriculum, unsuitable methods of instruction, overcrowded classrooms, indiscipline among students, lack of concerned faculty and excessive administrative work.

***1236.** KULKARNI, N.B., *Inspection and Supervision of Primary Schools in Maharashtra with special reference to Marathwada Region*, Ph.D. Edu., Poona U., 1982

The researcher has made an attempt to study the position as it prevailed in 1973-74 in regard to practices of inspection and supervision in primary schools in Maharashtra with special reference to the Marathwada region. The major objectives of study were (i) to study the practices of inspection and supervision of primary schools and to suggest improvements, (ii) to stimulate, coordinate and guide teacher efforts in better understanding of the teaching-learning process and to suggest techniques for better teaching, (iii) to know the views of primary school teachers and headmasters regarding inspection and supervision, (iv) to know the genuine difficulties of teachers in teaching and in organising various educational activities and to suggest some ways and means to overcome them, (v) to

study the difficulties of teachers and headmasters regarding instructions and professional growth and to suggest some effective means to increase their professional efficiency, (vi) to know the views of teachers and headmasters regarding inspecting officers and their approach, (vii) to study the classroom teaching of teachers and supervision by headmasters and to contribute to the nature of teaching-learning process going on in the classrooms, (viii) to know the approach and role of inspecting officers in inspection of primary schools, (ix) to study the reflection of personality of inspecting officers in school inspection, and (x) to study the instructional problems of headmasters and inspecting officers and to suggest remedies for them.

The study was a normative survey involving study of a field situation. The study mainly consisted of analysis of inspection proformas, analysis of inspection reports, and analysis of responses given by the inspecting officers, headmasters and teachers to questionnaires. During the year 1973-74, the Aurangabad Division had a total of 8357 primary schools (3484 multi-teacher and 4873 single-teacher). Out of this number, 975 or 20 per cent of the schools were selected as the sample. Out of these schools, 608 headmasters and 1752 teachers responded to the questionnaire. 585 inspection reports were received. In all, 164 out of 248 inspecting officers responded to the questionnaire.

Some of the findings were: 1. There was no clear distinction between administrative and academic inspection. The same officer did both. 2. Both headmasters and inspecting officers acted like bureaucrats. 3. There were no systematic procedures for selection of inspecting officers. 4. There was a dearth of properly trained inspecting officers. 5. There was no objective tool to evaluate a teacher's work. 6. The inspecting officers were overloaded with administrative work. 7. Very few (8.5 per cent) inspecting officers had postgraduate qualifications. 8. Only 50 per cent of the inspecting officers could finish inspection work as per schedule. 9. Inspecting officers generally observed the teaching methods of teachers, teaching aids prepared by teachers, school administration, school discipline and educational projects undertaken by the schools, if any. 10. About 42 per cent of the inspecting officers did not communicate to teachers what they observed in classes. 11. About 76 per cent of the inspecting officers called parents' meeting and discussed the problem of academic progress of pupils, attendance of pupils, and their health, discipline and habits. 12. Inspecting officers were found to be least interested in demonstration teaching, individual discussion and guidance, and in promoting professional growth of teachers. 13. Most of the inspecting officers complained about non-educational assignments. 14. About 70 per cent of headmasters took the assistance of teachers in office work. 15. Many headmasters reported that they observed teachers while teaching. 16. Many headmasters were keen about teachers' and students' punctuality. 17. About 15 per cent of the headmasters considered inspecting officers as fault-finders. 18. There was no arrangement for inservice training of headmasters. 19. Most headmasters had heavy administrative work. 20. Most of the teachers felt that headmasters were not competent to guide them. 21. About 78 per cent of the teachers reported that suggestions given by headmasters were not useful. 22. About 93 per cent of the teachers reported that inspecting officers did not give individual guidance. 23. Most of the teachers did not correct homework regularly. 24. About 50 per cent of the teachers were not in the habit of doing any extra reading. 25. Important problems faced by teachers were inadequate attendance of students, their continuous absence, lack of learning materials, the indifferent attitude of parents, inadequate library facilities, interference by parents and politicians, lack of appreciation by the authorities and lack of proper guidance from the headmaster.

1237. KULSUM, U., *Influence of School and Teacher Variables on the Job Satisfaction and Job Involvement of Secondary School Teachers in the City of Bangalore,* Ph.D. Edu., Ban. U., 1985

This correlational study had the age, sex, marital status, teaching experience, medium of instruction, job performance, attitudes towards teaching, teacher effectiveness, leadership behaviour of headmaster, school organizational climate, type of school management, number of schoolteachers, school strength and school age as independent variables and teacher's job satisfaction and their job involvement as dependent variables.

The major objectives of the study were (i) to examine the relationship between the independent variables on the one hand and the dependent variables on the other, (ii) to see whether the differences (at or above mean level and below mean level) in the independent variables belonging to the subjects would account for

significant differences in their respective levels of job satisfaction and job involvement, (iii) to see whether the interaction effects between the levels of any two selected pair of independent variables would be significant, (iv) to identify the independent variables that would turn out to be the significant predictors of job satisfaction and job involvement and also to know the extent of variance accounted for by each of the independent variables in respect of these two dependent variables, (v) to develop prediction equations for predicting job satisfaction and job involvement of the secondary school teachers, and (vi) to factor analyse the independent and dependent variables with the assumption that they constituted the components of 'school efficiency' with these variables put together.

The final sample of the study had 586 secondary school teachers selected on a proportionate stratified random sampling technique. Indiresan's (1974) Job Satisfaction Inventory and a Job Involvement Scale were tried out and used in the study to quantify teachers' job satisfaction and their job involvement respectively. Winer's (1957) Leadership Behaviour Description Questionnaire (LBQD) and Lawler and Porter's (1967) Job Performance Scale were tried out and used to measure the leadership behaviour of headmasters and job performance of teachers, respectively. The researcher constructed and standardized a scale on Attitude Towards Teaching Profession and a scale on Teacher Effectiveness and used these to measure attitudes and effectiveness respectively. Sharma's (1973) SOCDQ tried out for the study was used to quantify the school organizational climate.

The study resulted in the following main conclusions: 1. Teachers' salary ($r=0.14$), their job performance ($r=0.18$), their attitudes towards teaching ($r=0.65$), their effectiveness ($r=0.53$), headmasters' initiating structure ($r=0.25$), headmasters' consideration ($r=0.27$), and teachers' job involvement ($r=0.69$), correlated positively and significantly with their job satisfaction scores. 2. Teachers working in corporation schools had the highest level of job satisfaction ($M=104.29$) followed by teachers working in government ($M=99.43$), private aided ($M=94.77$) and private unaided ($M=84.23$) schools. 3. Teachers working in familiar climate type schools had a higher mean level of job satisfactions ($M=117.81$), followed by teachers working in the open ($M=114.7$), autonomous ($M=71.03$) climate type schools. 4. Female teachers as compared to male teachers and permanent teachers as compared to temporary teachers had higher levels of job satisfaction. 5. The interaction effect of sex and marital status and the interaction effect of sex and nature of job, the interaction effect of age and sex, the interaction effect of teacher size and school age, and the interaction effect of student size and school age pertaining to the job satisfaction scores were found to be significant. 6. Teachers' job involvement, their attitude towards teaching, headmasters' consideration, headmasters' initiating structure and teacher effectiveness turned out to be the significant predictors of teachers' job satisfaction scores accounting for 61.21 per cent of the variance. 7. Teachers' salary ($r=0.14$), teachers' attitude towards teaching profession ($r=0.58$), teacher effectiveness ($r=0.57$), headmasters' initiating structure ($r=0.19$), headmasters' consideration ($r=0.15$), school teacher size ($r=0.11$), school student size ($r=0.087$), and school age ($r=0.092$) were positively and significantly related to teachers' job involvement. 8. Teachers working in government schools had the highest level of job involvement ($M=70.19$), followed by the teachers working in coporation ($M=68.84$), private aided ($M=59.90$) and private unaided ($M=58.58$) schools. 9. Teachers working in autonomous climate type schools had the highest mean level of job involvement ($M=71.16$) followed by teachers working in open ($M=68.63$), familiar ($M=64.45$), controlled ($M=59.05$), closed ($M=52.57$) and paternal ($M=50.79$) climate type schools. 10. Permanent teachers had a higher level of job involvement as compared to temporary teachers. The interaction effect of sex and nature of job of teachers on their job involvement levels was significant. Female teachers who were permanent had a higher level of job involvement than male teachers, who were temporary, and male teachers who were permanent had a higher level of job involvement than the female teachers who were temporary. 11. The interaction effect between sex and professional degree qualification, the interaction effect between teacher size and school age and the interaction effect between student size and school age on the levels of job involvement were statistically significant. 12. Teachers' job satisfaction, teacher effectiveness, teachers' attitude towards the teaching profession, students size and teachers' performance turned out to be the significant predictors of teachers' job involvement, accounting for a total variance of 55.47 per cent. 13. Teachers' attitude towards the teaching profession and teacher effectiveness turned out to be the common predictors of both job satisfaction and job involvement. 14. In the factor an-

alytical study, five factors emerged from the 16 variables included in the analysis. They were teaching proneness, teacher experience, school size, teacher qualification and headmasters' initiating structure.

***1238.** KUMAR, G., *Psycho-Socio Factors of Wastage and Stagnation among Students in Polytechnic Institutions,* Ph.D. Edu., Mee. U., 1986

The objectives of the study were (i) to determine the extent of wastage and stagnation among students of polytechnic institutions, (ii) to determine the relationship of the personality traits of the students with their achievement in various subjects, (iii) to find out the social and environmental factors associated with the failures and dropouts of polytechnic institutions, (iv) to see whether intelligence was related with the achievement of the students, (v) to ascertain whether high and low achievements were related to the study habits of the students, and (vi) to suggest appropriate remedial measures.

The study was conducted on four polytechnics selected by the cluster sampling method from among institutions in Meerut, Muzaffarnagar and Bulandshahr. The final sample, selected randomly, consisted of 100 students of whom 50 were most successful students and 50 were most unsuccessful students. The students who received more than 80 per cent marks in each of the three examinations of the diploma course were termed the most successful whereas the students who either dropped out or failed were termed the most unsuccessful. The data were obtained using the Sixteen Personality Factor Inventory (Cattell), Test of Study Habits and Attitude (Mathur), Culture Fair Intelligence Test (Cattell), SES Scale (Sharma) and examination records. Chi-square, t-test and biserial correlation were used for data analysis.

The major findings of the investigation were: 1. The more highly the fathers were educated the more likely were the students to get higher achievement scores and less were the chances of their dropping out. 2. The children of highly educated mothers got higher scores in the examination than those of illiterate or less educated mothers. 3. The wards of highly educated brothers got higher scores in examinations and the chances of their dropping out were less than those whose brothers were either illiterate or less educated. 4. The students whose sisters were highly educated got higher scores in the examinations and the chances of their dropping out were also less than those whose sisters were either illiterate or less educated. 5. The education of the family members had a significant bearing on wastage and stagnation among the students in polytechnic institutions.

***1239.** KUMAR, U., *A Study of College Principals' Administrative Effectiveness in relation to Their Work-Values, Attitudes and Self-concepts,* Ph.D. Edu., Mee. U., 1986

The objectives of the investigation were (i) to study the relationship between principals' work values and their administrative effectiveness, (ii) to study the relationship between principals' attitudes and their administrative effectiveness, (iii) to study the relationship between principals' self-concept and their administrative effectiveness, and (iv) to study the relationship of work values, attitudes and self-concept of principals combined together with their administrative effectiveness.

The sample of 45 principals was selected from all the undergraduate and postgraduate colleges affiliated to Meerut University using the systematic random sampling technique. Further, 675 teachers were selected randomly from all these colleges who might rate the effectiveness of their respective principals. The tools used to collect data were the Administrative Effectiveness Scale (Bhatnagar) and Principal's Work Value Inventory (Vasantha). Besides, a five-point Principal's Attitude Scale covering five major areas—students, teachers, ministerial staff, management and higher authorities was constructed along with a Principal's Self-concept Scale. The data collected were analysed using median test, chi-square test and Aitken's pivotal condensation method.

The findings of the study were: 1. Work value of the principals was found significantly related with their administrative effectiveness. 2. Power-based work value and job-freedom-based work value were found to be relevant aspects of effective administration. 3. Principals' attitude towards teachers, students and ministerial staff was found to be a contributing factor in their administrative functioning. 4. Self-concept was not significantly related to administrative effectiveness. 5. Self-concept combined with confidence was found to be a significant predictor of administrative effectiveness. 6. Principals' work value, attitudes and self-concept combined together were found to be

significantly related with their administrative effectiveness. 7. The combined relationship of work value and attitude with administrative effectiveness was found to be significant at .05 level. 8. Similarly the relationship of work value and self-concept with administrative effectiveness was found significant at .05 level.

1240. LALITHA KUMARI, K.A., *A Study of Classroom Climate, Pupils' Psyche and Teacher Behaviour in Innovative Classrooms of Some Schools in the State of Karnataka,* Ph.D. Edu., MSU, 1984

The objective of the study was to study whether innovative classrooms affected the classroom climate and its components and the pupil psyche and its components like initiative, pupils' trust, pupils' motivation, and social relationship, the teacher behaviour and pupils' behaviour.

The sample of the study comprised 14 classrooms chosen from 13 schools spread over urban and rural areas. Six hundred and two students of class VIII and IX and 56 teachers of selected schools were included as the sample respondents. The tools employed for the study were the Classroom Climate Scale of Thelen (1972), Classroom Trust Schedule of Marie (1978), Preadolescent Initiative Questionnaire of Pareek (1971), Sociometry Scale of Pareek (1971), Junior Index of Motivation (1965), and Classroom Interaction Observation Schedule of Sunderalakshmi (1980). Data were collected through administration of tests to the clients and through observation of classroom interactions. They were analysed with the help of mean, SD, and t-test.

The major findings of the study were: 1. The classroom trust and pupil motivation were found to be high in low innovative classrooms and low in high innovative classrooms. 2. The high innovative classrooms had more positive choices and the low innovative classrooms had low group acceptability and cohesiveness. 3. The teacher behaviour in high innovative classrooms varied with positive signs. 4. Similarly negative signs were marked in teacher behaviour in low innovative schools. 5. Teacher behaviour had positive significant relationships with pupils' behaviour in the case of all the categories of schools.

1241. MEHTA, J.S., *Working Holidays: A Developmental Project,* SCERT, Rajasthan, 1977

The main objectives were (i) to study the feasibility of the programme of working holidays in a rural background, particularly in relation to the pupils of low socio-economic background, (ii) to locate the areas of maximum and minimum achievement of the pupils in basic subjects with a view to strengthening the strong points and improving upon the weaker spots, (iii) to present a model before the pupils, teachers and schools at large as to how best the vacations could be profitably utilized for the betterment of the pupils, (iv) to make the best possible use of the school plant when it is lying idle during vacations, and (v) to study the efficacy of the various activities organized as a part of the working holidays programme.

In all, 50 pupils belonging to various institutions were registered for the programme. For proper selection of the pupils, a blank asking information about their personal, social, cultural and educational background was used. The analysis of the information revealed that only 4 per cent of the pupils of scheduled tribes and 20 per cent of scheduled caste pupils participated in the camp. Out of the total participants, 28 per cent belonged to the families of farmers and 26 per cent to the families of government servants; 46 per cent were from lower income groups and 26 per cent from the middle lower groups. Parents of 20 per cent of the pupils were totally illiterate and 32 per cent were only partially literate. The important activities included under the daily programme were physical exercises, morning assembly, remedial teaching, work experience, use of library, supervised self-study and homework.

It was revealed: 1. The programme of remedial teaching could be faithfully integrated with the other programmes of working holidays. 2. The teacher-made tests, although crude in form and lacking in reliability and validity, could, profitably be utilized to diagnose the weak areas of the pupils and in measuring their academic attainments. 3. The diagnostic appoach to teaching, individualized instruction, intensive oral drilling and written exercises, the well-planned home assignments, etc. could definitely improve the academic standard of pupils. 4. Besides taking part in remedial teaching, the pupils of rural areas could also earn reasonable profits through work experience activities if they were implemented in a systematic manner. 5. The guided use of library services could be of much help

to pupils in improving their behaviour in relation to the processes of silent reading, consultation of various types of books and writing of book reviews. 6. Proper utilization of summer vacations could definitely prevent the pupils from wasting their useful and valuable time here and there and might lead them towards self-reliance and self-learning and generate self-confidence in them to participate as useful members in physical, productive and social activities.

1242. METHI, S.N., *An Investigation into the Relationship between Organizational Climate of Schools and Diffusion of Innovations*, Ph.D. Edu., SGU, 1985

The major objectives were (i) to identify and classify the secondary schools of Jaipur district according to their respective climates, (ii) to study the status of diffusion of innovations in the secondary schools of Jaipur district, (iii) to investigate into the relationship between organizational climate of schools and diffusion of innovations, and (iv) to investigate the relationship between the organizational climate types of schools divided on the basis of area, sex, management and size and diffusion of innovations in those schools.

The data were collected from 170 secondary schools which were about 75 per cent of each category of total population consisting of 145 boys schools and 25 girls schools. The responses of 3165 teachers were used. Data were collected through the School Organizational Climate Description Questionnaire (SOCDQ) by Sharma and the Educational Innovation Inventory (EII) developed by the investigator. Identification of the school climate was done with the help of profiles developed by Sharma, chi-square test and product-moment correlation or rank correlation were used for data analysis.

The major findings were: 1. 'Paternal' climate was the most frequently perceived followed by 'controlled', 'autonomous', 'open', 'familiar' and 'closed' climates. 2. In rural schools, the 'controlled' climate was more frequently seen whereas 'closed' climate was seen the least. 3. In urban schools and boys schools the 'paternal' climate was mostly seen while 'open' climate was seen the least in these schools. 4. All the dimensions of diffusion of innovations were found positively significantly related with their school climates of government, girls, big, urban and small rural groups of schools. 5. Significant positive correlations were found between organizational climate of schools and diffusion of innovations in Jaipur district (.943), school organizational climate and diffusion of classroom teaching–learning innovations (0.943), diffusion of innovations and esprit (0.569), intimacy (0.212), diffusion of innovations and climate of rural area schools (0.943), boys schools (0.943), government schools (0.1) and small schools (0.943), and usefulness dimension of the innovations and school climate of government schools (0.943). 6. Significant difference was found between government schools and recognized secondary schools in the proportion of distribution in terms of their organizational climate. 7. Boys secondary schools did not differ from girls secondary schools in terms of their proportion of distribution of climate types.

1243. MISRA, B.M., *Educational Administration in Orissa*, D.Lit., Edu., Utkal U., 1984

The purposes of the study were (i) to examine the structure and function of education and their relationship with the goals of education, (ii) to examine the educational system and administration of education, (iii) to examine the extent to which the administration succeeded in realizing the desired goal, the effectiveness of the structure, the machinery, role-relation, personnel operating upon the system, and (iv) to find out the relationship between the education system, the structure and the functional role of administrators with the undeveloped condition of education in the state.

The study was the result of multiphased work, including record survey, a questionnaire survey, interviews, case studies, and participant observation. The formats, questionnaire, interview schedule and observation guides were used as the tools of the study. Data were collected through official records, ordinance rules, regulations, responses from 150 educational administrators, interviews with ten selected administrators, case studies of decisions of courts and tribunals on educational matters, field study of 20 institutions and personal observation of events. Data were analysed qualitatively.

The major findings of the study were: 1. There was lack of a suitable, efficient educational bureaucracy in Orissa. 2. Lack of proper and suitable advisers to the Orissa Government in educational matters came in the way of formulation of administrative policy in the matter of education, perspective planning, and programme planning. 3. There was neither any long term educational policy nor any standing administrative

policy in education in Orissa. 4. This resulted in non-availability of sound educational planning. 5. Even though the volume of the education budget had increased, in view of large-scale expansion and inflation, the real per capita expenditure on education had steadily declined. 6. This had adversely affected the salary structure, infrastructure of education, quality of buildings, equipment and teaching aids, etc. 7. Educational expansion had taken place mainly on political considerations. 8. New and unconnected structures were created without the role-relation and institutional basis being properly perceived. 9. Even though sometimes steps were taken to increase enrolment, no concrete steps were taken to motivate people for education and to reduce dropouts. 10. Due to the absence of effective and attractive vocational education, demand for higher education increased. 11. A vast number of colleges were opened on political considerations; the teachers and other employees were appointed on political considerations and teaching, examination, introduction of new courses, subjects and posts were viewed from political angles. 12. Purposeless expansion of higher education, politicization of education at all levels, lack of terminal and vocational outlets at secondary school level, grave physical deficiencies in terms of building, equipment, furniture and books, sub-standard, ill-equipped and demoralized teachers, high-handed, corrupt bureaucracy and an indifferent society contributed to the sorry mess of education in the state. 13. The aristocratic educational bureaucracy had not failed to formulate any policy for administration of education and administration of activities connected with administration of education but it had also failed in evolving a system that would operate. 14. Politicization of educational administration had resulted in bringing weak and inexperienced administrators to power. 15. Most of them did not have the minimum requisite qualification for the posts they held. 16. Also, they were untrained for the job. 17. Their selection was made on subjective considerations. 18. Educational administration was dealt with in the same manner as the general administration. 19. The mediocre administrators in the academic bureaucracy did not enjoy the necessary powers. Thus, their effectiveness was never felt. 20. A subjective promotion process adversely affected the morale of educational administrators. 21. Communal feelings had not entered the educational establishments of the state.

1244. MISRA, RAM KISHORE, *A Critical Study of Administration of Secondary Education in Rural Areas of Faizabad Division*, Ph.D. Edu., Avadh U., 1983

The objectives of the study were (i) to make a critical study of the administration of secondary education in rural areas of Faizabad division which is a socially and economically backward region, (ii) to study the general educational background of the region, (iii) to investigate the present role of government, its controllers and supervisory agencies, and managements in administration of rural secondary education of the region, and (iv) to study the administrative role, service conditions, etc. of the principals and teachers.

The investigation was a survey type study. The sample of the study consisted of seven district inspectors of schools (including one regional inspectress of girls schools), 258 principals, 220 teachers and 222 pupils of rural secondary schools of Faizabad division which comprised six districts. Four questionnaires prepared by the investigator, interviews and observations on a planned basis were used for collecting data. Collected data were tabulated and analysed using percentage as the main technique.

The findings of the study were: 1. Pratapgarh and Gonda districts respectively were judged as having the best and worst educational facilities respectively for secondary education in the rural areas of the Faizabad division. Girls institutions were less than two per cent of the total number whereas coeducational institutions were more than 97 per cent. More than 40 per cent of the institutions were not situated near roads and more than 15 per cent had no post-office within a radius of one kilometre. 2. More than three-fourths of the principals were in favour of 100 per cent government control in educational administrations. The UP Board of Secondary Education had the greatest influence. The role of various officers of the education department was not judged as satisfactory. 3. In one-fourth of the institutions the role of management was not satisfactory. Managements' political affiliations were found to hamper the working of institutions. 4. The rights of the principals were judged as inadequate. They had to face dual control—from the government and from the management, which adversely affected their working. The number of teachers was less than required by the prescribed norms. Good teachers were not available in subjects like science, mathematics, English and commerce. There were few opportunities for academic up-

liftment of teachers. Though their service conditions were better now than they used to be, they were still unsatisfactory as compared to those of other professions. 5. In more than half of the schools, the number of office assistants was satisfactory. Three-fourths of the teachers felt a lack of adequate control of principals on the clerks. Sometimes managements also interfered, which affected the situation adversely. The students and guardians could be effective in educational administration but their cooperation was seldom sought. 6. In more than two-thirds of the institutions there was shortage of proper classrooms, whereas in about half of the institutions, the conditions of laboratories, aids, etc. were not up to the mark. Libraries were not provided according to the government norms and more than 93 per cent of the institutions had no reading rooms. 7. Curriculum was framed by UP Board of Secondary Education. Local needs and conditions were mostly ignored. For most of the subjects there were government textbooks. 8. Only about a third of the institutions had satisfactory sports materials. The funds were not found to be utilized properly according to norms. 9. Examinations were conducted according to the departmental schedules but seriousness in the home examinations was not up to the mark. Copying in examinations was a big problem. 10. In more than 92 per cent of the institutions the financial position was not satisfactory. There was a lack of financial planning. The financial condition of unaided institutions was the worst. Sometimes strained relations between principal and management also affected the financial and other conditions of the institutions adversely.

1245. MISTRY, D.H., *The Quality of School Life as a Function of Organizational Climate and Pupil Control Ideology*, Ph.D. Edu., SGU, 1985

The major objectives were (i) to study the influence of some biographical variables of students and some physical variables pertaining to school on the quality of school life, (ii) to study the impact of organizational climate on the quality of school life, (iii) to study the impact of pupil control ideology of teachers on the quality of school life, (iv) to study the effect of biographical variables of teachers on school climate, (v) to study the impact of organizational climate on pupil control ideology, (vi) to study the impact of biographical variables of teachers on pupil control ideology, and (vii) to classify the secondary schools of Surat district on the basis of quality of school life, organizational climate and pupil control ideology.

The sample consisted of 100 randomly selected secondary schools of Surat district. In all 4023 students and 846 teachers were the respondents. The Quality of School Life Scale by Epstein and McPartland, the Organizational Climate Description Questionnaire adopted by Gandhi (1977) and the Pupil Control Ideology translated by Gandhi (1977) were used for data collection. Chi-square test, t-test, analysis of variance, co-efficient of correlation and linear regression were applied for the analysis of data.

The major findings were: 1. The study revealed that out of 100 schools, 38 were good, 36 were average and 26 were poor in terms of quality of school life. 2. Area, sex and socio-economic status did not influence the quality of school life. 3. With respect to organizational climate, out of 100, 37 schools were open, 37 intermediate and 26 closed. 4. Biographical characteristics of teachers were not related to their school climate. 5. In terms of pupil control ideology, out of 100 schools, 53 were humanistic and 47 were custodial. 6. Urban and girl schools were comparatively more humanistic than rural and boys schools. 7. Quality of school life was found directly proportional to their climate. 8. The dimensions of climate played their role in building the pupil control ideology. 9. With the increase of positive dimensions and decrease of negative dimensions of climate, satisfaction, commitment to classwork and the reactions to teachers had increased. 10. The correlation between quality of school life and pupil control ideology was 0.508. It indicated that with less custodial control ideology, there was more of the good quality school life. 11. The study revealed that there was room for improvement in the three key aspects of school life—the classroom, the organizational climate of the school and school–community relations. All the three facets must be taken into account for enduring educational improvement.

1246. MISTRY, N.S., *An Investigation into the Classroom Climate of Secondary Schools in the Context of Cognitive, Attitudinal and Behavioural Characteristics of Pupils*, Ph.D. Edu., SPU, 1986

The objective of the study were (i) to study the classroom climate of the different schools of Kheda Dis-

trict, (ii) to study the classroom climate components in relation to sex, cognitive, attitudinal and behavioural characteristics of pupils, and (iii) to study the effect of interaction among these various independent variables (sex, cognitive ability, attitudinal and behavioural traits) upon classroom climate.

The tools used for collecting the data were the General Ability Test by M.T. Patel, the JIM Scale (Junior Index Motivation Scale), the Extroversion–Introversion Inventory by A.S. Patel and the Learning Environment Inventory by Anderson and Walberg adapted in Gujarati. The $2 \times 2 \times 2 \times 2$ factorial design was used for the study and analysis of variance was used for varifying hypotheses.

The major findings were: 1. The low intelligence group of students scored higher than the high intelligence group of students on cohesiveness. 2. Extroverts and the highly motivated group of pupils scored higher on the cohesiveness dimension than introverts and low motivated pupils. 3. The interactions between intelligence and extroversion, intelligence and motivation, intelligence and sex, extroversion and motivation, intelligence, extroversion and motivation, and intelligence, extroversion, motivation and sex were not significant. Only the interaction between intelligence and motivation, and the interaction between intelligence, extroversion, motivation and sex were significant. 4. The lower intelligence group showed higher score on diversity than the higher intelligence group. 5. The introvert group was more diversed than the extrovert group. 6. The low motivated group was more diversed than the high motivated group. 7. Sex differences were not significant on the diversity dimension. 8. The interaction between motivation and intelligence was significant. The interaction between extroversion and sex was also significant. Similarly the interaction between sex and motivation was also significant. The higher order interaction was not significant. 9. The high intelligent group was more formal and the extrovert group showed greater formality than the introvert group. The high motivated group was more formal than the low motivated group. Similarly boys were more formal than girls. 10. The interaction between intellignece and extroversion, extroversion and attitude, attitude and sex were significant. 11. The high intelligent group scored significantly higher on the speed dimension of classroom climate than the low intelligent group. Similarly the extroverts and highly motivated group scored higher than introverts and the low motivated group. The boys scored higher than girls on the speed dimension of classroom climate. 12. Out of a possible 11 interactions, only two were found significant. 13. The highly intelligent group scored higher on the environment dimension than the low intelligent group. Similarly, the extrovert group and highly motivated group scored higher on the environment dimension than the introvert group and low motivated group. The boys scored higher than girls on this dimension. 14. There was greater friction among low intelligent pupils than among high intelligent pupils. Similarly, the extrovert group contributed significantly to the friction dimension of classroom climate than the introvert group. The low motivated group scored higher than the high motivated group. The boys showed greater friction than girls. 15. High intelligence influenced goal direction to a far higher degree than low intellignece. Extroversion was unrelated to goal direction. Girls had higher goal direction than boys. 16. The low intelligent pupils perceived favouritism to a greater extent than the high intelligent pupils. Extrovert pupils and the low motivated group of pupils perceived favouritism to a greager extent than introvert pupils and high motivated pupils. There were no sex differences in perception of favouritism. 17. The low intelligent group was more associated with cliqueness than the high intelligent group. Introverts scored higher on cliqueness than extroverts. The low motivated group indulged more in cliques than the high motivated group. Girls had more cliques than boys. 18. The high intelligent group scored higher on the dimension of satisfaction than the low intelligent group. No significant differences was observed on this dimension between extroverts and introverts. The high motivated group was more satisfied than the low motivated group. Girls scored higher on the satisfaction dimension than boys. 19. The low intelligent group showed higher score on organization in comparison with the high intelligent group. Introverts and the low motivated group also scored higher on the organization dimension than extroverts and the high motivated group. Girls perceived organization better than boys. 20. The high intelligent pupils were more ready to face difficulty than the low intelligent pupils. The extroverts and introverts did not show any difference on this dimension. The high motivated group showed greater readiness to face difficulty than the low motivated group. Girls showed greater readiness to face difficulty than boys. 21. The low intelligent group, extroverts and the high motivated group showed more apathy than the high intelligent group. Introverts and the low motivated group. Boys were more apathetic

than girls. 22. The highly intelligent group, introverts and the highly motivated group perceived democracy to a greater extent as contributing to healthier climate than the low intelligent, extroverts and the low motivated group. Boys scored more on the democracy dimension of climate than girls. 23. The high intelligent group and highly motivated group scored significantly higher on competitiveness than the low intelligent and low motivated group. The extroverts and introverts did not score significantly on this dimension. Sex differences were not significant.

1247. MODI, C.B., *Relocation (Reorientation) of Secondary Schools in the City of Ahmedabad,* Ph.D., Guj. U., 1983

The major objectives of the study were (i) to study the growth of the secondary schools of Ahmedabad city in the light of the growth of secondary education in Ahmedabad district and Gujarat State, (ii) to find out the growth rate of institutions, pupils and teachers of Gujarat State, Ahmedabad district, Ahmedabad city and the wards of the city, and (iii) to suggest a relocation plan on the basis of strength and its impact on material requirements of the secondary schools.

The entire research work was based on statistical data provided by the Census Department, Director of Education (Gujarat State), District Education Officers, Ahmedabad Municipal Corporation and the Bureau of Economic and Statistics, Gandhinagar. The investigator collected data on secondary schools for the years 1951 to 1981 to find out the rate of growth of the secondary schools of the State. Using a questionnaire, he collected data from 200 schools out of 219 in Ahmedabad city. As the figures and information regarding expenditure were not provided by the schools, he exploited other resources pertaining to expenditure. On the basis of the grant-in-aid code of the State, the average school expenditure was calculated.

Major findings of the study were: 1. The growth rate per year (1951–81) in percentage was 13.3, 15.5 and 7.0 for institutions, pupils and teachers respectively in Ahmedabad city, 2. The figures of increase in the number of pupils by percentage in the district and the city were 395.4 and 406.1 in the period from 1951 to 1981, 3. The average number of secondary pupils per school was 442 in the district and 502 in the city during the period from 1951 to 1981. 4. As a base for the replanning of secondary schools in Ahmedabad city, the points taken into consideration were (a) area of Ahmedabad city, (b) the growth of population in Gujarat State, Ahmedabad district and Ahmedabad city, (c) secondary schools and secondary pupils in proportion to the population, and (d) number of teachers at the time of investigation. 5. There was a possibility of having 299 secondary schools according to the area of 128 sq.km. in the year 1991, 6. The figures of population in the city would be 31,21,335 and 42,90,120 in the years 1991 and 2001 respectively. 7. The population–pupils ratio would be 20:1 and the pupils per school would decrease from 528 to 457 in 1991. 8. By saving one-third of the expenditure out of the total expenditure which was in the form of wastage, technical and vocational institutions could be set up in Ahmedabad city and ward-wise workshops could be put up from the savings in expenditure.

1248. MOHANA, R., *Case Studies of Innovative Institutions,* Ph.D. Edu., MSU, 1983

The objectives of the study were (i) to prepare case studies of innovative secondary schools, (ii) to show the distinction between innovative and non-innovative schools, (iii) to bring out elements of differences among the innovative schools, (iv) to study factors contributing to the innovativeness and non-inovativeness of schools, and (v) to study the process of innovation adoption in each innovative school. The case studies consisted of, (1) a qualitative description of physcial facilities, professional and academic structure of the staff, teacher–pupil ratio and such other general features of the innovative school, (2) Description of the process of innovation adoption in the system, (3) listing of the barriers to innovation adoption in the system, (4) information regarding innovative practices in various areas, (5) recording of performance of students in the secondary school final examinations over a period of three years, (6) measurement of change-proneness of the faculty members, (7) assessment of leadership behaviour of the head of the school, and (8) measurement of organizational climate of the school.

The study was conducted with a purposive sample of nine secondary schools of Madras city. The tools developed by the investigator for the study were, (1) an Innovative Practice Checklist comprising a list of 75 innovative practices, (2) a School Profile Data Questionnaire, (3) a Questionnaire on Adoption Process of

Innovation, (4) a Checklist of Barriers comprising 45 barriers to Innovation, and (5) an interview schedule for headmasters on the implementation of innovations. The other tools used were, (1) an adapted version of Miller's Change Proneness Inventory, (2) the Leadership Behaviour Description Questionnaire developed by Hemphil and Coons, and (3) the Organisational Climate Description Questionnaire developed by Halpin and Croft. The case studies of the selected schools were conducted by administering the above tools, gathering information from records and by non-participant observation. The data were processed in terms of percentages and analysis done qualitatively.

The major findings of the study were: 1. A dedicated head, close supervision of the system by the authority, favourable tradition, and autonomy for the adoption unit in the planning of the process of adoption were the important factors found to create a favourable system effect on the individual members of the system. 2. The authority successfully played the polymorphic or monomorphic opinion leadership roles for promoting innovation practices in their system. 3. The role of the change agent was also played by the authority through a power coercive approach to the adopters. 4. The results of the feedback analysis were given weight for making necessary modifications in the adoption process. 5. The impact of resistance was not felt on the effective functioning of the system. 6. The barriers pointed out by the adopters in the innovative schools were universal in nature, viz., heavy syllabus, examination-oriented system of education and want of time within school hours. 7. The students of innovative schools were found to have high academic achievement. 8. The heads of innovative schools were found to score high on leadership behaviour inventory. 9. High innovative schools showed a clear tendency towards openness in organizational climate. 10. Innovative schools were found to have high change proneness.

1249. MUKHOPADHYAY, M., *Inventory Management in Engineering Colleges—A Study Report*, NIEPA, 1986

The major objectives were (i) to identify the nature of inventory in an engineering college, (ii) to study annual allocation of funds on consumables and equipments in different types of institutions, (iii) to study the system of procurement, storage and distribution of various items in the inventory, (iv) to find out the space cost (holding cost) for the inventory, (v) to estimate the staff cost (or the ordering cost) for the inventory, (vi) to study whether scientific techniques of inventory management like ABC analysis, EOQ analysis, computer applications, etc., are utilized in managing the inventory, (vii) to study the methods of maintaining the records and issue of items, (viii) to compare the per student cost of inventory in different types of engineering colleges namely, Regional, State and University engineering colleges/faculties, (ix) to make a comparative study of the cost of inventory vis-a-vis the cost of management in different types of engineering colleges; (x) to compare the various models of inventory management across the different types of engineering colleges and estimate their management effectiveness, and (xi) to propose an optimally effective method of inventory management for engineering colleges.

This was a descriptive survey. Instead of a purely cross-sectional survey, indepth case studies were undertaken on various aspects of management needed to look into the inventory. The case study approach was adopted in view of the details as well as to understand the dynamics of inventory management. The case studies were conducted on 28 engineering colleges, eight regional colleges, 13 state colleges, and seven university institutions. Out of the sampled institutions, ten each were from the western and southern region and eight from northern region. The colleges from the eastern region were excluded from the sample on the advice of the Project Advisory Committee, since the 28 cases were considered adequate to understand the problem. In order to measure various aspects, a number of instruments were used. There were three questionnaires—Form A, Form B and Form C, asking for information on most of the aspects of inventory management. These were supplemented by interviews with principals, heads of departments, teachers and stores personnel, observation and study of records. In each college a minimum of six and a maximum of 18 respondents were involved in the study. In all there were 330 respondents from 28 colleges. Data were collected by personally visiting each college during 1984-85. The case on each college was separately prepared. Multiple case analysis was carried out to identify commonalities or otherwise. The data were subjected to statistical analysis using mean, SD, analysis of variance and t-test, and chi-square test.

The major findings were: 1. In five colleges, both

purchase and storage of consumables were done centrally (centralized inventory management), in seven other colleges purchase was centralized but storage was decentralized (partially centralized inventory management), and in 16 cases both purchase and storage were decentralized. 2. Per student expense on consumables varied widely among different types of colleges. In the REC, the mean was Rs 260.30, whereas in state and university colleges the figures were Rs 200.00 and Rs 169.43 respectively. 3. There seemed to be a relationship between size of inventory and frequency of choice of the decentralized model. The larger the inventory, the more were the chances of choosing the decentralized model. 4. The staffing pattern for inventory management varied broadly. In some colleges, there were full-time staff members, in certain others inventory was manage by teachers, laboratory assistants and clerks. The mean annual staff cost in these 28 colleges was Rs 1,03,381 for a mean cost of consumables of Rs 2, 62,000 5. The space occupied for storing the inventory in selected colleges ranged from 800 sq.ft. to 5995 sq.ft., the range of forgone rental was Rs 20,000 to Rs 149,875. Out of the total space occupied 33.57 per cent to 44.77 per cent of the space remained unused. 6. Power of cash purchase varied widely from Rs 50 to Rs.500 and was vary low compared to the cost of material today. The purchase procedures were cumbersome and involved a number of levels of personnel in the hierarchy. 7. Management efficiency, as determined by the ratio between cost of consumables and cost of management (staff + space cost) varied between 0.35 and 4.85. Mean efficiency was 1.65.

1250. MUKHOPADHYAY, M., and MURTHY, C.R.K., *Personnel Structure in Engineering College,* NIEPA, 1986

The objectives of the study were, (i) to study the staff–student ratio in engineering colleges, (ii) to study the ratio among various levels of faculty, as well as between academic and non-academic staff in engineering colleges, (iii) to study inter-departmental variations in personnal structure within the colleges, (iv) to study the relationship between number of students, and teachers, and number of faculty and non-faculty staff, (v) to ascertain the views of academic staff of engineering colleges about the issue of an openhanded career structure for faculty, as well as proportions of professors, assistant professors, and lecturers, (vi) to ascertain respondents' views on staff–student, faculty–non-faculty ratio, and (vii) to formulate certain guidelines for designing personnel structure in engineering colleges.

The study was carried out in two stages. The first was basically a survey of the present staff in the engineering colleges—both teaching and non-teaching. The non-teaching staff also included the technical as well as non-technical staff, both clerical as well as menial. The second phase of the study was a two-stage delphi for developing the basic framework of personnel structuring. In the first stage, the criteria for determining the staff structure were developed. In the second phase, the actual number of staff was worked out on the basis of the criteria developed in the first stage of the delphi. The survey was carried out by mailed questonnaire as well as by personally visiting the engineering institutions. The first stage survey was carried out in 43 institutions, chosen from all over India. The delphi, in its first phase was done on 30 institutions. The second stage delphi was carried out on 160 departments of engineering and non-engineering subjects. The data were collected through a series of questionnaires, separately designed for surveying the present staff position, for finding out the views of the engineering college staff on the criteria of personnel structure, and for the proposed staff pattern in the colleges. The data thus generated were tabulated and analysed, primarily through mean, standard deviation, correlation, etc.

The major findings were: 1. The staff–student ratios in the engineering colleges were neither steady nor uniform; they varied rather widely among the colleges and also among the departments within colleges. The overall ratio was 1:12. 2. The mean student–teacher ratio among the various departments varied. In civil engineering the ratio was 1:21, in mechanical branch it was 1:18, in the case of electrical, the ratio was 1:15 and in metallurgy the ratio was 1:10. 3. The mean ratio in terms of number of professors, assistant professors and lecturers also varied among the colleges as well as among various departments. In the case of civil and mechanical engineering, the mean ratio was 1:2. 7:5.3 and 1:2.6:5.5 respectively; in the case of chemical, metallurgical and other applied science as well as humanities units the ratio was around one professor: two assistant professors: three lecturers. 4. The ratio between faculty and non-faculty was also not uniform—the technical staff were comparatively more than the clerical staff available per faculty. This ratio again var-

ied widely between regional and the other two categories of colleges. 5. The office of the principals were staffed by, on an average, 154 persons in RECs, whereas in the other two categories the corresponding number was only 50. 6. The structures in terms of levels of staff in workshop, library, and the central office also varied. Almost without exception, RECs were better manned, if not overstaffed at times, compared to SECs and UECs. 7. The correlation between number of faculty members and students in colleges was 0.66 (significant at the .01 level) and that between the number of faculty and non-faculty was 0.57 (also significant at the .01 level of significance).

1251. NARULA, R.K., *Analysis of Common Factors of Teacher Morale,* Ph.D. Edu., Kur. U., 1986

The objectives of the study were (1) to identify through factor analysis the fundamental dimensions of teacher morale, and (ii) to devise and standardize a teacher morale inventory based on the dimensions discovered through factor analysis.

The fundamental dimensions of teacher morale were identified with the help of a hundred experts. For a preliminary draft of the inventory, a sample of 239 teachers was taken. The final form of the inventory was tried on 640 teachers. For reliability and validity a sample of 500 teachers was taken. The sample of teachers was taken from government and non-government recognized high/higher secondary schools of 12 districts of Haryana. The 18 dimensions identified for the teacher moral inventory were linked with areas like self-confidence in teaching, work-load (teaching and non-teaching), salary, facilities (academic and non-academic), relationship with colleagues, parents, headmasters and students, social status, discipline, cocurricular activities, and attitude towards the teaching profession. Based on these dimensions, 263 items were constructed. These items were scored on a three-point scale ranging from 'strongly agree' to 'strongly disagree'. After the item analysis, 168 items were retained which were further subjected to factor analysis.

The study revealed: 1. After the factor analysis of the scores on the inventory five factors were extracted, viz., (a) morale based on teacher self-confidence, work-load and job satisfaction, (b) morale based on educational and social support, (c) morale based on human and social relationships among the staff, discipline and facilities for cocurricular activities, (d) morale based on service conditions and rapport with students and colleagues, (e) morale based on professional adjustment. The items were readjusted under these factors and a final form of the inventory was prepared which was standardized. 2. The characteristics of the inventory were: (a) It had 168 items divided into five areas (based on factor analysis); (b) the scoring was done on a three-point scale by giving a 3,2 or 1 score to 'strongly agree', 'no opinion', and 'strongly disagree' respectively; (c) the test–retest reliability of the inventory was 0.97 for the whole inventory and for the five different dimensions of the inventory the reliability coefficient renged from 0.12 to 0.97; (d) the inventory was validated for content, construct and factorial validity. The validation against the ratings of headmasters revealed a validity coefficient of 0.81 for the whole inventory. The validity coefficient for different dimensions ranged from 0.69 to 0.86; (e) percentile norms were established for Haryana school teachers; (f) the teachers, on the basis of scores, were categorized into five categories. Those obtaining scores 454 and above were considered very good; those with a score range of 430 to 453 as good; and those with a score range of 416–429 as average; those with a score range of 404–415 as poor; and those with a score of 403 and below having very poor morale.

1252. NIEPA, *An Indepth Analysis of Ashram Schools,* New Delhi, 1986

The main objectives of the study were (i) to find out how far Ashram Schools had been able to meet the educational needs of tribal children in the area where such schools were located, (ii) how far such schools were able to bring tribal children into the mainstream of socio-economic life, and (iii) to find out the cost-effectiveness of these schools vis-a-vis other, formal type of primary and basic schools functioning in the same area.

After preliminary study of the problem, five states, namely, Andhra Pradesh, Bihar, Gujarat, Madhya Pradesh and Maharashtra, having large concentrations of tribal population and large numbers of Ashram Schools were selected for the purpose of the study. Three districts respectively considered as high, medium and backward in development were selected from each state. One Ashram School and one non-Ashram school from each district were selected for indepth

analysis. Besides analysis of secondary data from records, case studies of tribal students were prepared.

The major findings of the study were: 1. Ashram Schools have been able to meet the educational needs of tribal children to only the limited extent of 4 per cent of the age-group 6–11 years. 2. Since Ashram Schools were generally located in remote rural areas, they met the needs of the population which would have otherwise remained without education. 3. As the Ashram Schools provided free boarding and lodging facilities, they transferred resources in favour of poor sections of the society and thus attempted to equalize opportunities for education for those who were economically and socially unequally placed. 4. It was observed that not many students from the tribes having low rate of literacy and placed at the lower rungs of social and economic status were found to be availing this facility. Since the number of schools considered here was very small, no generalization on this aspect could be made but future policy concerning admission of students should give preference to the children belonging to such tribes. 5. Although Ashram Schools tended to bring the tribal population into the mainstream of socio-economic life by providing common education, yet, due to the seprate schools for tribals, their integration with non-tribal population did not take place in these schools. With a view to helping integration of tribal children with non-tribal children, some percentage of non-tribal children needed to be admitted in these schools. 6. The unit cost of providing education in schools with small enrolment was high, irrespective of their location. Therefore, there was a strong case for increasing the number of enrolments from 20–60 to 150 or so, and the number of teachers from 2–3 to 5. 7. There was also a case for improving the infrastructural and teaching–learning facilities in these schools, so that these students were able to compete with students educated in other rural or urban schools. 8. Although the rate of dropout in Ashram Schools was relatively less than in non-Ashram Schools, yet the magnitude was high. The rate of dropout required to be reduced. Teachers and headmasters needed to be given monetary and other incentives to reduce the rate of wastage. 9. This institutional arrangement might be expanded in the areas where the rate of literacy among tribes was low and where the trible population lived in scattered habitations in remote areas.

1253. NIEPA, *Management of Utilisation of Post-Matric Scholarship Scheme : A National Study, National Profile,* New Delhi, 1986

The main objectives of the study were (i) to understand the vertical and horizontal linkages and coordination among the different departments concerned with post-matric scholarships and the management pattern of the Post-Matric Scholarship Scheme, (ii) to analyse the utilization of the Post-Matric Scholarship Scheme (PMSS) by the spatial (State, NSS zones, districts) and socio-demographic (SC, ST, male and female) categories and throw light on the differential utilization among the different categories, (iii) to examine the distribution of post-matric scholarships among the hostellers and day-scholars and among the fresh and renewal cases, (iv) to identify the states, NSS zones, districts, castes and tribes, male/female beneficiaries with maximum and minimum ranges of utilization, and (v) to suggest remedial measures to improve the effectiveness of post-matric scholarships and to make recommendations for the improvement of the scheme.

The study was primarily based on secondary data. For the collection of data, state and institution schedules were administered. A few selected case studies were also conducted. The data were based on the study of the functioning and management in 15 states and union territories. Fourteen educational institutions were selected from the capitals of the selected states and union territories. While selecting the institutions, there were two major considerations. Firstly, as far as possible, all the categories of higher educational institutions, such as universities, agriculture universities, medical colleges, engineering colleges and the general colleges in arts, science and commerce, should be represented. The second consideration was that the selected institutions, as far as possible, should represent the educational management patterns as autonomous, private and government. The study of management and utilization of PMSS was based on a review of the cases of 3454 students belonging to scheduled castes (2753) and scheduled tribes (701). Applying the statistical techniques of Location Quotient and Coefficient of Equality, the study made a careful analysis of the utilization of PMSS.

Some of the major findings of the study were: 1. From the management point of view, in the case of processing applications for the award of scholarships, and sanctioning and disbursement of scholarships,

there had been shortage of staff which created delay in the processing. 2. Among the states where the PMS scheme was managed by different welfare departments, there was no selective mechanism for evaluation of the scheme and its impact on academic performance of the beneficiaries. 3. The education departments which had a set-up to inspect, supervise and evaluate the impact on educational development of the scheme, suffered from shortage of staff for efficient management of data. 4. There was lack of a regular and institutionalized system of coordination among the departments managing PMSS. As far as the regional imbalance in utilization pattern of PMSS was concerned, it was observed that the states which lagged in this regard were Orissa, Rajasthan, Madhya Pradesh for scheduled castes, and Tamil Nadu and Andhra Pradesh for scheduled tribes. The utilization of PMSS in these states was low as compared to other states. 5. PMSS had, however, been quite effective in encouraging higher education and the enrolment of SC/ST students had increased in higher education over the survey period. But among the ST, the increase was found less than that among SC.

1254. NIEPA, *Monitoring of the Functioning of the Post-Matric Scholarship Scheme: National Profile,* New Delhi, 1986

The main objectives of the study were (i) to review the functioning of the Post-Matric Scholarship Scheme, (ii) to examine the availability and adequacy of data and their impact on the operational efficiency of the Post-Matric Scholarship Scheme (iii) to understand the periodicity of payment, extent of delay and the bottlenecks in processing awards and disbursement of scholarships, (iv) to examine the adequacy of the existing amount of scholarships, to understand the expenditure pattern of SC/ST students and to evolve criteria for the revision of rates, (v) to suggest remedial measures to improve the operational efficiency of the scheme and to make recommendations, and (vi) to evolve appropriate monitoring pro-forma for institutional, district and state level information and to suggest modifications in the application forms of the Post-Matric Scholarship Scheme.

The study was based on monitored data covering 16 states and three union territories, 16 educational institutions selected from the capitals of the states under study, review of the case of 3138 students belonging to the scheduled castes (2569) and the scheduled tribes (569), indepth case studies of 19 state-level officials managing the Post-Matric Scholarship Scheme, ten heads of educational institutions of 72 former beneficiaries. The study was conducted by administrating three schedules, viz., a State Schedule, an Institution Schedule and a Beneficiary Schedule.

The major findings of the study were: 1. The data on scholarship awards and disbursement were not properly maintained in most of the states on the basis of their distribution among SC/ST, male/female, hosteller/day scholars, fresh/renewal cases. There was no regular system of monitoring and, therefore, no systematic attempt was made to classify the data properly and to evaluate the functioning of the scheme. 2. The scholarship was paid every month only in Kerala, Madhya Pradesh, Maharashtra, Punjab and Chandigarh. In Assam, Bihar, Himachal Pradesh and Delhi, the scholarship was paid annually. 3. Late submission and incomplete application forms, delay in forwarding forms, shortage of staff and late release of funds were some of the reasons for delay in the payment of scholarships in different states. 4. As regards the extent of delay, the study had carefully examined the actual and prescribed dates, starting with the printing of the application forms to the disbursement of scholarships. A great deal of divergence was found in the different states in this regard. In some states, the scholarships were paid after 10 to 11 months from the date of commencement of the new academic session. 5. There were several bottlenceks in the timely disbursement of scholarships. They were classified into academic and administrative bottlenecks in the report. Irregularity in the commencement of academic sessions, examinations and admissions were some of the academic bottlenecks. Lack of flexibility of time schedules in printing, dispatching and processing applications, awarding and disbursing the scholarships were some of the administrative bottlenecks which caused delay in the disbursement of scholarships. 6. The study examined the adequacy of the scholarship amount, the expenditure pattern and the need for revision of rates. It was established that the existing scholarship amounts were not sufficient for the requirements of SC/ST students at different levels of education and therefore, these must be raised.

1255. NIEPA, *Post-Matric Scholarship Scheme for Scheduled Castes and Scheduled Tribes : A Pilot Study,* New Delhi, 1986

The main objectives of the study were (i) to test the tool of evaluation in the light of response, and (ii) to apply corrections by restructuring, amending, deleting items found unnecessary and including new items considered essential for the study.

To conduct the pilot study, four professional institutions located in Delhi were selected. The research tools employed for this study were discussions, interviews and the schedules.

Schedule I was divided into two parts. Part I related to the information about the institutions; part II related to the views of the heads of institutions of the pilot study as conducted in the four institutions, viz., Indian Institute of Technology, Delhi; All India Institute of Medical Sciences, Delhi; Jawaharlal Nehru University, Delhi; and Kendriya Vidyalaya, IIT, New Delhi.

The major findings and suggestions were: 1. The pilot study proved to be extremely useful. 2. The respondents were of the view that delays in payment of scholarships should be cut down and the scholarship should be paid every month. 3. The scholarship amount was inadequate and should be enhanced suitably. 4. The institutions should be given authority to renew scholarships for the total period.

1256. NIEPA, *Working of Book Bank Scheme : A Pilot Study,* New Delhi, 1986

The main objective of the study was to evaluate the working of the Book Scheme in a few institutions mainly with the intention of trying out the validity of tools.

To conduct the pilot study, two professional institutions, viz., the All India Institute of Medical Sciences and Indian Institute of Technology located in Delhi were selected. The research tools employed for this study were discussions, interviews and the schedules. An Institutional Schedule was designed to obtain information on the working of the Book Bank Scheme in the Indian Institute of Technology, Delhi and the All India Institute of Medical Sciences, Delhi. It contained items pertaining to the history of the Book Bank; staffing pattern of the institutions; financial assistance received from the Government of India; the utilization pattern of the assistance, other sources of support, etc. The second part contained some open-ended questions inviting opinions and suggestions for improvement. Schedule II, namely the Beneficiary Schedule, attempted to obtain information from scheduled tribe students who were beneficiaries of the scheme. The schedules were administered in the two institutions and the responses obtained were separately analysed.

The findings were as follows: 1. The SC/ST students studying in these two institutions found the Book Bank Scheme quite useful. 2. The library staff was of the view that grants should be released on time. 3. The beneficiaries of the scheme as well as the library staff were of the view that the amount of grants should be increased.

***1257.** OBEROI, S.C., *A Study of Alienation and Role Conflict in the Employees in relation to Identified Supervisory Practices,* Ph. D. Edu., Mee. U., 1985

The main objectives of the inquiry were (i) to study the extent of alienation presented among employees of Meerut University, (ii) to study the role conflict in the employees, (iii) to study the relationship of alienation with identified supervisory practices, (iv) to study the relationship of role conflict with identified supervisory practices adopted in Meerut University, and (v) to study the relationship of alienation with role conflict among employees.

All the non-teaching and ministerial staff members of Meerut University constituted the subjects of the present investigation. The tools administered over all the subjects were the University Employees Alienation Scale (Joshi), the Role Conflict Scale and the Supervisory Practices Scale (developed by the investigator). The data were analysed by Pearson's product-moment coefficient of correlation.

The study revealed: 1. Alienation among all the employees was normally distributed. 2. The prediction of occurrence of role conflict in employees and its normal distribution were supported by the scores obtained by the employees. 3. The relationship between alienation and role conflict in employees was found to be positive and insignificant at both .01 and .05 levels. 4. The coefficient of correlation between alienation and *laissez faire* supervisory practices was significant at .05 level whereas coefficients of correlation between alienation and democratic supervisory practices, and between al-

ienation and autocratic supervisory practices were insignificant at both the levels. Alienation and democratic supervisory practices showed a negative coefficient or correlation. 5. There was a negative and insignificant relationship between role conflict and democratic supervisory practices and a positive and significant relationship between role conflict and autocratic, and role conflict and *laissez faire* supervisory practices.

1258. PANDA, U.N., *A Study of Management, Organisational Climate and Teachers' Morale in Orissa Schools*, Ph. D., Edu., Utkal U., 1985

The major objectives of the study were (i) to explore the problems faced both by the government and private high schools, (ii) to study the nature of problems which have been responsible for creating various difficulties, hardships, handicaps and hurdles for these schools, (iii) to make a comparative study of the problems of the government and private high schools, and (iv) to suggest possible remedial measures for the improvement of the existing conditions.

The tools used for data collection were questionnaires for the headmasters, teachers and members of the managing committee. The sample schools were chosen from two coastal districts, viz., Puri and Balasore, and three tribal districts, Keonjhar, Phulbani and Kalahandi. Care was taken to ensure representation of schools from different categories like advanced and backward regions, school from rural and urban areas, private and government schools, girls and coeducation institutions. The sample respondents were 100 headmasters, 200 teachers, and 100 managing committee members. The data were collected through personal visits. The data were analysed in descriptive form.

The findings of the study were: 1. The government schools had better physical facilities in comparison with those of private schools. 2. Both private and government schools were lacking in library facilities. 3. The staff of government schools got the prescribed salaries whereas the teachers of private schools did not get salaries at the prescribed rate. 4. In comparison with government schools, the private schools gave more stress on correction of written work and coaching classes. 5. The result of secondary school board examination for private schools (51.5 per cent) was better than that of government schools (49.61 per cent). 6. Around 71 per cent of government schools and five per cent of private schools published magazines. 7. NCC was neglected in most of the high schools. 8. The majority of the managing committee members of rural area private schools were illiterate and inactive. 9. Teachers of a large number of private schools used to visit the houses of problem children whereas none of the teachers of government schools did so. 10. The headmasters of government schools were not satisfied with the government management, whereas the private schools headmasters were somewhat satisfied with their management system. 11. There was no large difference between the school climate scores of government and private management schools. 12. The teachers were not satisfied with their present salary and other financial incentives. 13. Most of the appointments in private schools were made on the basis of acceptance of forced donations to the school. 14. The teachers did not have much scope to read magazines and reference books. 15. Around 76 per cent of the schools were poor with regard to teaching aids and equipment. 16. Around 70 per cent of the schools were average so far as teacher-pupil ratio was concerned. 17. There were 94 per cent schools with good status as regards teachers' qualifications.

*1259. PANDEY, D.D., *A Critical Study of the Residential Education Programme as laid down by U.P. Government in some Intermediate Colleges*, Ph.D. Edu., Mee. U., 1985

The major objectives of the study were (i) to investigate the effectiveness of the residential education programme, (ii) to identify the major difficulties faced by tutors in conducting the residential education programme, (iii) to investigate how many facilities recommended by government were really available to students, and (iv) to formulate some concrete suggestions for better implementation of the residential educational programme.

The sample of the *ex post facto* experiment consisted of 200 students and 30 tutors from the residential education programme and 200 students from the non-residential education programme of the UP government in intermediate colleges in nine regions. The students of the non-residential education programme were matched pair by pair on intelligence and socio-economic status. The tools used in the study were Intelligence Test (Mehrotra), SES (rural) Scale

(Kulshrestha), Vyaktitva Parakh Prashnawali (Saxena), Verbal Test of Creative Thinking (Mehdi), Students' Self-Confidence Inventory and Residential Education Programme Inventory. The data collected were analysed using t-test, skewness and kurtosis.

The investigation yielded the following findings: 1. The students of residential education programme had social adjustment similar to the students of the non-residential education programme. 2. The students of the residential education programme were emotionally better adjusted in comparison with the students without a residential education programme. 3. The levels of social adjustment, home adjustment and self-confidence of the students with a residential education programme were higher in comparison with students without a residential education programme. 4. The level of health adjustment of the students without residential education programme was higher in comparison to the students with residential education programme. 5. Verbal fluency, verbal flexibility, verbal originality and composite verbal creativity of the students with a residential education programme were found significantly better in comparison with the students without a residential education programme. 6. The meagre amount of the scholarships and non-payment of scholarships regularly every month created a lot of economic problems for the students. 7. Lack of coordination among staff members, stringency of money and the over-burdened responsibilities of the tutors were found to be hurdles in the smooth functioning of the residential education programme.

1260. PANDEY, SAROJ, *A Study of Leadership Behaviour of the Principal, Organisational Climate and Teacher Morale of the Secondary Schools,* D. Phil. Edu., All. U., 1985

The study aimed (i) to find out the relationship between the leadership behaviour of principals and the organizational climate of schools, (ii) to investigate the relationship between the leadership behaviour of principals and teacher morale, and (iii) to investigate the relationship between organizational climate and teacher morale. In order to attain these objectives, several hypotheses were formulated.

The study belonged to the category of descriptive survey of a correlational nature. The sample in this study included 34 secondary schools drawn from a population of 138 secondary schools of Allahabad district through the stratified random sampling technique. A total of 404 teachers of these schools participated in this study. A Hindi adaptation of Halpin and Winer's Leadership Behaviour Description Questionnaire, the School Organizational Climate Description Questionnaire by Motilal Sharma and the Teacher Morale Inventory (TMI) developed by the investigator herself were used for data collection. The Mann-Whitney U test, chi-square with Yate's correction and Rank difference correlation coefficient with tied observations were the statistical techniques used to examine the hypotheses.

The major findings were: 1. No significant difference was found between the leadership behaviour of rural and urban principals. 2. Rural schools were more open than those in urban areas. 3. A positive and significant relationship at 0.05 level was found between the initiating structure dimension of leadership behaviour and esprit, psycho-physical hindrance, controls, production emphasis and humanized thrust dimensions of organizational climate. 4. The consideration dimension of leader behaviour was found positively and significantly related to psycho-physical hindrance, controls and humanized thrust dimensions of organizational climate. 5. Teacher morale was positively and significantly related to the initiating structure and consideration dimensions of leadership and controls, production emphasis and humanized thrust dimensions of organizational climate. 6. Chi-square value was found significant at 0.05 level between high *vs.* low teacher morale and open *vs.* closed climate.

***1261.** PATEL, B.N., *Dimensions of Classroom Environment: An Exploration,* Ph.D. Edu., SGU, 1987

The objectives of the study were (i) to find out the different dimensions (factors) responsible for building classroom environment, (ii) to prepare a scale to measure the classroom environment of different classrooms of secondary schools of Gujarat State, and (iii) to classify the classroom environment such as open environment, intermediate environment and closed environment on the basis of obtained score on a prepared classroom environment scale.

A pilot study was carried out on 200 students studying in Std. X of four secondary schools of Surat for item analysis. In the final draft there were 102 statements. It was administered to 2594 students of Std.

VIII, IX and X of 22 secondary schools of five districts of Gujarat State.

The major findings were: 1. Classrooms were classified as open, intermediate and closed in terms of the environment of the classroom. Data analysis supported variation of number of classrooms in different categories of classroom environment. 2. Data did not support the association among different categories of classroom environment with respect to area, that is rural and urban. 3. Open classrooms were maximum in South Gujarat and minimum in North Gujarat. Closed classrooms were maximum in North Gujarat. The proportion of intermediate classrooms was almost the same in all the regions. 4. The mean classroom environment scores of students of different standards differed. 5. There was a significant difference between boys and girls on classroom environment scores. 6. The difference obtained on mean CE scores of pupils of different levels of parents' education was significant. 7. The difference on mean CE scores of pupils whose parents' occupation was service and students whose parents' occupation was business was not significant. 8. There was a significant difference in mean CE scores of pupils belonging to three categories of achievement.

1262. PATEL R.M., *A Study of the Leadership Behaviour of Principals of Higher Secondary Schools of Gujarat State*, Ph.D. Edu., SPU, 1983

The major objectives of the study were (i) to identify leadership behaviour patterns of principals of higher secondary schools of Gujarat State as perceived by principals and teachers in reality and according to their ideals, (ii) to identify the organizational climate of the schools, (iii) to measure professional development status of the teachers working in these schools, and (iv) to study the interrelationship among leadership behaviour of the principals, organizational climates of schools and professional development of teachers.

This was, by and large, a survey type of study. One hundred higher secondary schools were selected out of 949 higher secondary schools on the basis of stratified random sampling. The investigation was based on the responses of 1000 higher secondary school teachers and 100 principals. LBDQ developed by Halpin and Winer, OCDQ developed by Helpin and Croft, a Professional Development Inventory (controlled and open response type) and a personal data sheet for principals were used as tools for collecting the data. T-test and correlation techniques were used to draw conclusions.

The major findings were: 1. There was a positive relationship between the two dimensions of leadership behaviour of the school principal, viz., initiating structure and consideration. 2. The principals of the schools manifested mostly the high consideration (HH) and low consideration (LL) pattern of leadership behaviour leaving middle positions sufficiently vacant. 3. The HH pattern of leadership behaviour was associated with open, autonomous and controlled climates; the LL pattern of leadership behaviour was associated with closed climate. 4. Morale of teachers increased when the actual leadership behaviour of the leader approximated the desired behaviour as perceived by teachers. 5. Significant mean differences were found between leaders' self-perception and faculty perception of his actual leadership behaviour. 6. Male and female principals perceived their own leadership behaviour as being significantly different on the 'consideration' dimension. 7. No significant differences were found between male and female administrators as perceived by teachers and by themselves on 'initiating structure' and 'consideration'. 8. The principal's effectiveness was a significant predictor of organizational climate. 9. The professional development of teachers of higher secondary schools was quite encouraging because on no dimension was the score less than sixty per cent. 10. The schools showed a tendency towards being closed rather than open. 11. The teachers scored highest on professional development under the leadership of principals manifesting the HL pattern of leadership behaviour in contrast to teachers working under the leadership of principals manifesting the LL pattern. 12. The teachers working in schools where a paternal climate prevailed scored highest on their professional development and lowest in schools with familiar climate. 13. The rural-urban dimension did not play any significant role in case of any of the dimensions of leadership behaviour. 14. Professional qualifications of principals did not play any significant role in the professional development of teachers and in shaping the climate of the schools. 15. Professional qualities significantly correlated with values, attitudes and motivation and negatively correlated with 'consideration'. 16. Esprit significantly correlated with 'intimacy', 'thrust' and 'aloofness'. 17. 'Aloofness' significantly correlated with 'production emphasis' and 'thrust'.

1263. PATHAK, S.P., *An Evaluative Study of the Administrative and Organizational Pattern of Inservice Education for Secondary School Personnel in India,* Ph.D. Edu., Del. U., 1985

The objectives of the study were (i) to study the historical growth and development of inservice education for secondary school personnel as a movement with its developmental stages from 1955 to 1978, (ii) to study the administrative and organizational set-up that managed the inservice education during the period to know, (a) whether any change took place in the set-up arising out of circumstances; (b) whether any definite direction was followed leading to the emergence of any administrative pattern, and (c) whether any process/processes evolved or strategy/strategies adopted for the purpose, and (iii) to evaluate the administration of inservice education in relation to its components, namely, planning, organization, control, direction and coordination.

The approach followed in the study was historical. The primary sources of data consisted of documents and written records, such as the constitution of the administrative bodies, annual reports of these bodies, reports of conferences, seminars, workshops, assessment committees, review committees, and other official letters and other documents found in the form of mimeographed materials. The secondary sources were books, articles appearing in the newspapers, journals, etc. concerning inservice education. Historical criticism of the different sources had been undertaken to achieve the objectives of the study.

The findings of the study were: 1. The idea of inservice education emerged during the period 1854 to 1947. 2. Concrete proposals were made for the management of inservice education between 1947 and 1955. 3. The primary objective of the administration between 1955 and 1959 was 'policy making'. 4. Between 1959 and 1961 the main thrust was towards facilitation and removing shortcomings inherent in the administrative and organizational set-up. 5. Between 1961 and 1966 the policy was 'expansion'. 6. Between 1966 and 1969 efforts were directed mainly towards the qualitative improvement. 7. Between 1969 and 1978 the main objective was consolidation and stabilization of the programme. 8. The administrative set-up made efforts to provide democratic leadership rather than an authoritarian/*laissez faire* one. 9. During each of the above historical stages (1955-1969) the administration made efforts to decentralize and democratize its working by delegating more and more powers to the states/local managements. 10. In the case of the historical period 1969-78, the decentralization and democratization on the part of administration could not be established due to nonavailability of data (from primary and secondary sources) from the states. 11. The development of a set pattern was discernible in the growth of administration and organization of inservice education in India. Throughout the period from 1955 to 1971, the apex body made gradual efforts to transfer it to the states/local managements and in 1971 the goal was achieved.

***1264.** PATHAK, Y.V., *Comparison of the Available Facilities vis-a-vis the Norms and Standards Prescribed by the Pharmacy Council of India (PCI),* TTTI, Madras, 1987

The chief objectives were (i) to identify the teachers' perception about the facilities available in the Manipal College of Pharmacy and their perception about the utilization of each of the available facilities, and (ii) to identify their views on the extent of adherence to PCI's norms by the college.

The study elicited the views of a total of 16 faculty members of the institution through a questionnaire devised for this purpose.

The analysis yielded the following findings: 1. The faculty was found to be satisfied with the utilization of the library services as they were reported to have an effective utilization ratio of 85.36 per cent. 2. Use of journals got the least priority as reported by the faculty. 3. Excepting classroom and furniture, the availability of all other accessories like audio-visual aids, hostels, cocurricular activities and sports needed to be enhanced. 4. All the facilities required for ensuring a healthy teaching-learning environment were found to be optimally used as the entire process showed an effective utilization ratio of 100 per cent. 5. All the faculty, in effect, had a similar and high-rated opinion on the availability of various laboratories. 6. Nearly 95 per cent of the faculty projected a good image of their college.

1265. PHADKE, V.Y., *Role of the Government of Maharashtra in the Development of Secondary Education,* Ph.D. Edu., Bom. U., 1982

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

whether any radical changes had been introduced in the pattern of secondary education and, if so, their nature, (ii) how far the state government succeeded in providing equal opportunities to all who wished to acquire secondary education, (iii) how far the Government of Maharashtra succeeded in modernizing curricula, syllabi, etc., (iv) whether the system of examination had been reformed and, if so, the nature and effects of the reforms, (v) whether teachers in secondary schools had got security in their service as well as better pay scales and whether they had received other amenities, and (vi) whether the government had made special efforts to promote the education of girls and backward classes, including scheduled castes and tribes.

The study employed primarily the historical analytical method and was based on interviews of some legislators who represented teachers' constituencies in the Maharashtra Legislative Council, former directors and deputy directors of education, headmasters of secondary schools and eminent educationists. The data were collected from various public documents, periodicals, reports, books and journals. Another tool of the study was an unstructured interview schedule. The collected data were analysed under various heads such as structured changes, curricula and textbooks, finance, examinations and students.

The main conclusions of the study were: 1. The state government was committed to promoting the education of girls and backward classes, development of Marathi, modernization of curricula and syllabi, training of teachers, reforming the system of examinations, provision of better textbooks, search for talented students, and improvement in the quality of supervision. 2. The government did not give priority to education in its development programmes and did not provide for adequate financial support to schools for improvement under the new pattern of education, i.e. 10+2+3. 3. Very few schools introduced vocational courses. 4. What had been achieved in reality amounted to a mere tinkering with the old system with some modifications rather than any radical innovations in secondary education. 5. The number of students in secondary schools increased from 8.58 lakhs in 1960-61 to 27.08 lakhs in 1977-78. 6. The dropout rate at the primary school stage was large and so also failures in the SSC examination. 7. The state government did not succeed in effectively checking malpractices in utilizing the concessions given to economically backward class students. 8. Some changes were introduced with a view to decentralizing the administration of education. 9. The state government succeeded in publishing textboooks which were quite cheap for all the students. 10. Teachers in secondary schools received better salaries than before. 11. The state government achieved remarkable success in improving the professional qualifications of secondary school teachers through a network of colleges of education and a system of deputing teachers for training and giving them stipends. 12. The scheme introduced by the government to give awards annually to outstanding secondary school teachers acted as an incentive for teachers to put in better work.

***1266.** PILLAI, S.S, *A Study on the Influence of TTTI on Polytechnic Education,* TTTI, Madras, 1986

The study was undertaken to analyse the impact of TTTI's influence on the polytechnic education system in the southern states. The objectives of this study were (i) to ascertain the extent of the TTTI's contribution to the development of professional abilities of the faculty, (ii) to assess how far the faculty was able to utilize the abilities so acquired, (iii) to call for further areas of contribution which the TTTI could launch, and (iv) to list the problems encountered in implementing TTTI training in polytechnics.

Data were gathered from a total of 451 polytechnic teachers working in 58 polytechnics in the southern region. Their views were elicited through a questionnaire.

The analysis revealed the following: 1. The polytechnic faculty felt that their knowledge and skill in curriculum development, instructional development, subject updating and educational media were enhanced through TTTI training. 2. The teachers seemed to feel that the examination system was the greatest impediment in the way of implementing the TTTI training back in their own institutions. 3. The polytechnic students were reported to have acquired relevant knowledge and practical training and hence showed better acceptability to the employers than before. 4. The teachers also indicated that the technicians turned out had to wait for a considerable period of time to get a suitable placement. 5. Offering subject-updating courses and providing updated instructional materials would help teachers in improving their teaching practices.

1267. POTDAR, N.S., *A Critical Study of Existing Admission Procedures for Admission to the B.Sc Nursing Course,* Ph.D. Edu., SNDTU., 1986

The objectives of the study were (i) to study the existing patterns of admission procedures in various colleges of nursing in India, (ii) to find out the areas of knowledge taken into consideration for admission to the B.Sc. nursing course, (iii) to find out opinions of teachers of colleges of nursing about admission procedures, and (iv) to determine the validity of entrance examination marks for admission to the B.Sc. nursing course.

The sample consisted of 20 nursing colleges in India. Out of these colleges, 17 sent information about their admission procedures in a structured questionnaire duly filled in by heads of the institutions. Structured questionnaire was sent to 305 lecturers working in different colleges in order to seek their opinions about admission procedures. Marks of the entrance examination were collected from the college records. The obtained data were analysed by using percentages, mean, Spearman's rank correlation and product-moment correlation.

The major findings of the study were: 1. Marks of the qualifying examination were considered as one of the criteria in a large number of cases. 2. The entrance examination consisted of achievement test, interview, practical tests, and aptitude test. 3. According to lecturers, aptitude, general knowledge, ability for verbal communication, personality and poise should be considered for admission to the nursing course. 4. Qualifying examination and entrance examination marks had a better predictive value of academic success in the B.Sc. nursing course. Marks in the interview did not show high correlation with B.Sc. nursing marks.

The educational implications of this study are: (1) There should be a standardized procedure for admission to the B.Sc. nursing course which should necessarily include an aptitude test and should be a multistage screening procedure. (2) Weightages for achievement test, practical test, aptitude test, and interview should be 35, 20, 24, and 21 per cent respectively.

1268. PUNNOOSE, U., *An Investigation into the Recruitment of Air Force Personnel, The Training Facilities Provided and Conditions of Service with a view to Study the Problem of Resettlement after Their Active Service,* Ph.D. Edu., Bom. U., 1983

The major objectives of the study were (i) to study the selection procedure in the Air Force, the type of personnel who joined the services and their qualifications and background, (ii) to study the type of training imparted to Air Force recruits, particularly airmen, from their initial stage till their retirement, (iii) to study various resettlement training schemes for the personnel, (iv) to study various self-employment opportunities available to ex-service personnel, and (v) to study various facilities offered within the service and after retirement and to see how far they helped personnel to resettle.

Descriptive survey method was adopted. The method of simple random sampling was used for the selection of the 500 airmen trainees from 19 states. The final data were collected from four Airmen Training Institutes, viz., the Mechanical Training Institute, Electronic Training Institute, Electrical and Instrument Training Institute and Administration Training Institute. The tools employed in this study were questionnaires, interviews and reports. The data were analysed by using percentages.

The major conclusions of the study were: 1. The minimum qualification required to join the Air Force was matriculation. 2. The maximum number of airmen trainees were from the families of farmers and defence employees whose income was less than Rs. 500 per month. 3. Many airmen studied privately and acquired higher academic qualifications. 4. NDA officers were selected for different branches according to their qualifications and through rigorous tests at Service Selection Boards after passing a UPSC examination. 5. The training and development process continued throughout the service of an officer. 6. During service, opportunities were provided to the officers to develop in both management and professional fields. 7. State governments had made provisions for reserving vacancies for ex-servicemen except in Assam, Kerala, Meghalaya and Bihar (Civil Services). 8. No weightage was given to previous experience and service put in by servicemen by public and private sectors. 9. There was wide spread dissatisfaction among ex-servicemen regarding resettlement, getting their pension and commutation of pension in time. 10. One of the major problems facing a large number of retiring and retired Air Force personnel was housing. Many retired without having their own accommodation and spent all their earnings on procuring/constructing houses.

***1269.** PURANDARE, V.B., *A Study of Progress and Problems of Ashram Schools of Thane District,* Ph.D. Edu., SNDTU, 1987

The objectives of the investigation were (i) to study the availability of education facilities for the scheduled tribes, (ii) to study the utilization of grants in government and non-government ashram schools, (iii) to study the amount spent on education of scheduled tribes, (iv) to study educational, administrative, financial, social, hostel, and health problems faced by ashram schools, and (v) to study the progress of ashram schools from Thane district.

The sample consisted of ashram schools (N=20) selected from the Dahanu sector of Thane district. These schools were selected by the incidental sampling method. Data were collected by administering questionnaires to headmasters, teachers, superintendents, and students from selected ashram schools. Data were also collected through various government reports, school records, etc. The collected data were analysed by descriptive statistical techniques such as counting frequencies, graphs and percentages.

The major findings of the study were: 1. State and Central governments provided financial assistance to these schools. These schools extended to VIII, IX and Xth grades. 2. High schools and hostel facilities were available for scheduled tribe students. 3. The students were provided books, school uniforms and medicines along with an allowance for lodging and boarding in the hostel. 4. About Rs. 32 lakh were spent on the education of scheduled tribe students in Thane district during 1985-86. 5. About 15,000 pupils were studying in 76 different ashram schools during the year 1985-86. 6. Ashram schools did not get equipment due to administrative delays; there were some difficulties in admitting the students to these schools (restriction of admitting boys and girls students in the ratio of 1:1 and not admitting day scholars from other communities). 7. Schools found difficulty in getting cooperation from the village people. 8. All the equipment, books and uniforms were not given to the students in the month of June every year.

1270. PURANIK, S.D., *A Study of the Relationship of Social Maturity of Pupils with Organisational Climate and Teachers' Morale in the Primary Schools of Bangalore City,* Ph.D. Edu., Mys, U., 1985

This study was conducted to find out (i) the levels of social maturity of male and female students separately, (ii) the levels of social maturity of students under the influence of selected independent variables, (iii) the relationship between social maturity of students on the one hand and organizational climate and morale of teachers on the other, (iv) morale of male and female teachers separately, and (v) morale of teachers under different variables.

The sample of the study included 70 schools, 2634 students and 712 teachers. The tools used for the study were Thirtha's Social Maturity Scale, Sharma's Organisational Climate Descriptive Questionnaire and the Teachers' Morale Scale designed by the investigator. The statistical techniques used were one-way ANOVA, coefficient of correlation and t-test.

The major findings of the study were: 1. The social maturity level of female students was higher than that of male students. 2. In the development of social maturity, autonomous climate, private management and unaided schools, and urban location of schools were found to be most conducive factors. 3. The morale of female teachers was higher than that of male teachers. 4. The controlled organizational climate, government management, and urban locality were conducive to development of morale of teachers. 5. No single dimension of organizational climate was effective for the development of social maturity of students. 6. Morale of all teachers who formed the subjects of the study was found to be non-effective in contributing to the development of social maturity of their students. 7. No effect of morale of teachers of both sexes was noticed on the development of social maturity of male or female students or on the students of both sexes even under the influence of organizational climates, school organizations and localities.

1271. RADHAKRISHNAN, KAMALA, *Educational Administration in the State of Tamil Nadu with reference to Decentralisation— An Evaluative Study,* Ph.D. Edu., Kar. U., 1984

The objectives of the study were (i) to study the historical development of the administrative set-up in Tamil Nadu from its inception to the present day, (ii) to analyse the policies and practices of educational administration and to assess their democratic nature, (iii) to find out how democratic decentralization of power helped to shape the educational patterns and

growth, (iv) to determine the attitude of educational administrators towards a democratic philosophy of administration and their readiness to accept it, (v) to ascertain the extent of teachers' participation in educational administration, (vi) to present a comprehensive picture of decentralization so as to effect other changes better suited to the present trends in education and to suggest various measures for future educational administration, and (vii) to identify the emerging patterns of education administration in Tamil Nadu.

This study was both a historical as well as normative exploration. The questionnaire was the most important tool used in this investigation. The validity and reliability of the questionnaire were established. An interview schedule was another tool used in this study. The questionnaire was issued to 16 chief educational officers, 51 district educational officers, 14 inspectresses of girls' schools, 153 headmasters and 153 teachers of high and higher secondary schools. As there were about 3700 high and higher secondary schools, three high or higher secondary schools, one aided, one government boys' and one government girls' school in each of the 51 educational districts were chosen and the questionnaire was sent to the headmasters and to the seniormost teachers of these institutions.

The major findings of the study were: 1. Teachers should have full power and discretion in the introduction of teaching aids and methods. 2. Headmasters should have full powers regarding admission, including evaluation of transfer certificates from schools of other states and under other systems or boards. 3. The headmasters should have power to appoint teaching and non-teaching staff at least to fill vacancies due to absence on leave of existing incumbents. 4. The minimum hours of work should take into account the time required for correction of note-books and answer-papers. 5. Transfer of teaching and non-teaching staff should be made only with the consent of headmasters. 6. There must be an automatic increase in the teaching staff commensurate with the strength in the various classes which should be bifurcated if strength exceeded the prescribed norm. 7. Regarding purchase of furniture and other items like laboratory equipment which could be purchased from the specified government corporations or departments or other approved firms, headmasters should have full power, subject to provision of funds. 8. Regarding timing of the school and working days also, the headmaster should have full power, depending upon the convenience of the community, subject to filling the minimum hours and days prescribed. 9. The district educational officer should have full powers for framing the curriculum for the educational district. 10. The district educational officers should have power to enter into contracts and agreements for transactions within the educational districts. 11. The chief educational officers should have full powers to approve the location of the school and accord recognition to it, and the authority to sanction introduction of new courses and bifurcation of classes on the basis of the recommendations of the headmasters. 12. Every head of office, including headmasters, should have the power to sanction contingent expenditure without having to obtain the countersignature of higher authorities.

1272. RAI, N., *Centre-State Relations in the Field of Education in India,* Ph.D., Pol. Sc., Utkal U., 1985

The main purpose of the study was to probe the constitutional position of the Centre and the states in the field of education and the role of the Centre and the states in making policies, implementing them and in financing education in India.

The study is based on primary sources of data such as governmental reports, documents and proceedings, and secondary sources of data such as published books and published articles in various journals.

The main findings of the study were: 1. Education had become a major concern of government in federations where both Centre and states shared responsibilities. 2. For about a quarter of a century since 1950 the constitutional division of powers and functions in the field of education could not be maintained because of practical problems which confronted both the levels of government in the functional area of education. 3. A pattern of relationship of interdependence and cooperation between the two levels of government had to be evolved gradually but steadily. 4. Planning in education was a matter of joint endeavour by the Centre and the states. 5. The Centre performed the role of a guide, initiator and coordinator for the states in the case of policy formation, while in policy-implementation the Centre relied heavily on the states. 6. Also the Centre and states cooperated in their positive contribution to policies and decisions on education life in frequent meetings, seminars and conferences which took place at ministerial as well as official levels. 7. The Centre

and states took part in regular and frequent consultation which was facilitated through several advisory bodies. 8. In the case of the financing of education the Centre assumed a dominant role. 9. There had never been occasions where the Centre worked out a policy of total conformity by the states to its dictates. 10. As a result of including education under the concurrent list, it could be questioned whether this would mean an end to the pattern of cooperative federalism evolved in the field of education during the period 1950-75. 11. However, in practice, the Centre those the role of initiating and influeneing policy making and offering financial assistance, leaving the organization and administration of education to the states.

1273. RAJ, A.B.C., *Survey on Management and Administration of Education in Tamil Nadu, ASCI,* 1975 (Tamil Nadu Government sponsored)

The objective of the study was to review the current situation in educational management and administration in relation to, (i) the administration of school education at the department, district and village level, (ii) the management of technical, college and university education at the headquarters and college level, (iii) the management of education and science research programmes and means of activizing the State Institute of Education, (iv) the system of grant-in-aid and subsidies administered by the secretaries of education, health, agriculture and labour departments as set forth in the statutes and government orders and the sharing of educational expenditure between government and local bodies, and (v) the machinery for planning and coordination of education in the state.

The study was a survey of the administration of the education department at state level and other educational institutions. The records of the state education department and other education institutions were consulted. Apart from this observation of the working of the administrative machinery was undertaken.

The findings of the study were.. 1. The department of education was broadly divided into two directorates, the directorate of school education and the directorate of college education. While both directors of the directorates were paid the same salary, the workload and responsibilities of the director of school education were very heavy. 2. The power of decision-making were highly centralized in the education department, the real decision-makers being the two directors of education and the secretary to the government. 3. The head office was tied down with very heavy paper-work. Consequently, the management functions, namely planning, organizing, coordinating and control were ignored. 4. The senior officers of the department had to carry a large number of files home due to excessive paper-work which interfered with their family life. 5. Staff and line functions were not clearly demarcated and job had not been clearly defined. 6. Hierarchical promotions were based on length of service and seniority, with the result that senior positions were manned by persons who had neither capability nor imagination. 7. Executive positions were often given to academics without any special training being imparted to them. 8. The structure of organization had not changed to meet environmental needs. 9. Internal and external coordination with other educational agencies of the state was lacking. 10. There were a number of committees to lay down/guidelines in the management of education but none of the committees ever met.

1274. RAJAGOPALAN, S.S., *An Enquiry into Certain Aspects of Selected Innovations in Education,* Ph.D. Edu., MSU 1983

The major objectives of the study were (i) to identify factors promoting introduction of innovations, (ii) to identify factors facilitating the institutionalization of innovations, (iii) to examine the process of dissemination of innovations, (iv) to ascertain factors leading to discontinuance of innovations, and (v) to identify factors of resistance to introduction of innovations.

The study covered ten innovations practised in 140 schools of Tamil Nadu. The tools used were questionnaires constructed by the researcher, an interview schedule, personal data sheets and school records and innovation reports. Both qualitative and quantitative techniques were used for data analysis. Case studies of innovations were also undertaken.

The major findings were : 1. Headmasters, NCERT/SCERT, Department of Education of Tamil Nadu were three major sources of the origin of innovations. 2. Only ten per cent of teachers were aware of the primary source of an innovation. Most of the teachers knew about an innovation from secondary sources only. 3. Those innovations which were sponsored by authorities motivated teachers to implement them. The next factor arousing interest and acceptance was

the feeling that the innovation was a probable solution to their problems. 4. Only three out of ten innovations did not meet with resistance. They were the compulsory physical education programme, work experience and library-centred teaching. However, only work experience was institutionalized. 5. Resistance was from internal and external sources in seven innovations. In four innovations, school teachers were the sole agency of resistance while headmasters and teachers jointly resisted one innovation. The external agencies of resistance were college teachers and parents. College teachers resisted the introduction of the college complex scheme and parents resisted introduction of new mathematics. 6. Open resistance was shown to three innovations—objective-based evaluation, college complex scheme and internal assessment scheme. 7. Three major causes of resistance were ignorance, insecurity and the economics of introducing an innovation. Some of the main motives for resisting an innovation were fear of failure, loss of prestige, tendency to revert to the old practice, preference for the familiar and peer group's unfavourable reactions. 8. Some kind of dissemination had taken place with regard to only four innovations. The disseminating agents were teachers, headmasters and inspecting officers. The causes for absence of dissemination or for a slow rate of dissemination were the tendency to keep new practices private, conservatism among teachers, lack of confidence and competence.

The educational implications of this study are that administrators should provide adequate training to teachers while introducing new practices. Before the innovations are introduced, teachers and headmasters should be involved in adequate discussion about the need for introducing the innovations and the problems which would be solved through the introduction of these innovations.

1275. RAO, K.V., and MITTAL, J.P., *Indepth Study of the Government of India Scheme of Scholarships in Approved Residential Secondary Schools,* Dept. of Measurement and Evaluation, NCERT, 1984

The objectives of the study were (i) to find out the problems of scholars, (ii) to determine the improvement in academic performance of merit scholars, and (iii) to determine the extent of personality development of children along with development of a national and social integration outlook.

During 1981-82, 500 scholars were selected on the basis of preliminary examination by the state agencies and the final examination and interview by the Central Board of Secondary Education. Data were collected from the scholars in the residential schools as well as those who dropped out of the scheme and from their parents, besides principals of schools, directors of education and officers of the Central Board of Secondary Education and the Ministry of Education. Personality development was measured through the reactions of parents, teachers and principals.

The major findings were : 1. In the 40 approved residential schools, 25 per cent of the seats in class VII were expected to be reserved; however the schools offered seats on the basis of vacancies which varied from year to year; in some schools, sometimes, vacancies remained unfilled throughout the academic year as the number of scholars allotted varied from school to school. 2 One-third of the approved schools did not have the +2 stage. A majority of the schools had English as the medium of instruction; hardly any had Hindi as the medium, while very few used a regional language other than Hindi; some had English medium as well as regional language classes. Consequently, the majority of students had difficulty in communicating and in following classroom instruction because of lack of language competency, resulting in poor adjustment and, sometimes, even dropouts. 3. Though the Ministry of Education was to pay all appropriate expenditure, some schools charged for several facilities. The parents faced difficulties in meeting this additional financial burden. 4. Other problems encountered by students were poor social and personal adjustment, particularly at the initial stage, because of varying personal and socio-economic background and type of discipline resulting in difficulty in developing a sense of national integration by associating with students of other socio-economic and cultural groups, poor academic performance because participation in cocurricular activities and games increased gradually in most cases. 5. For low performance and dropping out, besides change of medium, students gave study of a new language, involvement in cocurricular activities and lack of guidance from teachers as reasons, while personal reasons cited were ill health, inability to adjust to new environment, financial hardship, voluntarily leaving to join class XI in an institution affiliated to state board so as to improve chances of admission to a professional course or non-availability of a stream in

the institution or inability to obtain a seat in a specific stream, delay in communication from the ministry regarding continuation of scholarship or placement in some other school, particularly after class X. The reasons cited by parents and principals coincided with those of students. 6. Seventeen per cent of the scholars were not satisfied with the remedial teaching. Other problems were uncongenial atmosphere in the school, rigid discipline and, at times, indiscipline, poor teaching, inadequate physical facilities, overemphasis on cocurricular activities, style of living and additional fees. Dropouts felt they developed proficiency in games and sports, self-expression, self-confidence, self-discipline, good manners, sense of national and social integration and leadership qualities in school. 7. Most parents, including those of dropouts, felt that residential school life developed good study habits, good manners, self-discipline, positive attitudes, self-confidence, sociability and healthy living habits 8. Many principals felt that the quality of selected candidates had declined over the years, probably because of poor publicity; many deserving candidates were left out as the paper incomes had increased without a concomitant increase in the ceiling fixed; income of parents and age were frequently incorrectly stated. Besides the language difficulty, the other problems faced were food, home-sickness and the like. As documents regarding age and family income were not verified at the time of award of scholarship, many students had to drop out even after joining the school.

1276. RAY, G.C., *A Spatial Analysis of School Education in Orissa*, Ph.D. Geog. Utkal U., 1983

The main purposes of the study were (i) to understand and explore some of the fundamental aspects of school education in Orissa state taking into consideration different categories of blocks, (ii) to identify the existing location of different types of schools for future planning, (iii) to find out the ideal proportion of schools at the primary, middle and secondary levels of the schooling system and to plan the exact location of schools in order to maintain the proportion, and (iv) to provide primary schooling facilities through locational maps to all habitations within one kilometre radius for the children living in villages with a population of 300 or more.

The study was conducted through analysis of official records, census, yearbooks, books and periodicals concerning development of primary, middle and secondary school education in Orissa during the period 1947–1981. The data were analysed through descriptive techniques, graphs, and maps.

The main findings of the study were: 1. Since Independence till 1978 there had been a five-fold increase in the number of primary schools, a more than four-fold increase in the number of teachers and about a thirteen-fold increase in enrolment. Thus the increase in enrolment far exceeded the increase of number of schools and teachers. 2. There was an overall rising trend in the middle school education, and the situation was worse than in the case of primary education. 3. The per capita investment in school education decreased from Rs 6.71 in 1947 to Rs 0.64 in 1981. 4. The secondary schools were not located within optimum distance of a 5-km radius in the case of 97.4 per cent of habitations. 5. Eastern Orissa had an increasingly higher share of increase in the educational level, while all other regions of Orissa were in a backward state. 6. The distribution of schools was disproportionate and new schools were being opened in an unplanned manner and in many cases they were being located in locationally unfavourable sites. 7. Out of 314 blocks under study, 63 were in the low category and 90 were in the very low category with regard to infrastructure facilities for primary, middle and secondary schools. 8. The untrained teacher problem was more acute at school level. 9. There was a close link between the existing number of primary schools and the level of literacy. 10. Administrative problems were more acute than anything else and there was continuous discontent among primary and the secondary teachers of Orissa. 11. The district figures indicated an overall trend of increasing dropout in the increasing level of education from primary to secondary stage. 12. Disproportionate distribution of schools was one of the important reasons for dropouts from schools. 13. Serious efforts were needed to restore the ideal proportion (4:2:1) of interdependent primary, middle and secondary institutions, which could solve certain basic problems. 14. Accommodation facilities were needed for all the teachers in rural and tribal areas. 15. The terminal benefits to non-government primary teachers in rural and urban areas were not equal to those of government teachers. 16. Democratic management of secondary schools was needed. 17. There was a need of a 10 per cent provision in central budget and a 30 per cent provision in the state budget for education.

1277. REBELLOW, D.M., RAO, R.R., and HASAN, R., *A Study of the Management of Education in the Andhra Pradesh,* ASCI, 1986 (Ministry of HRD financed)

The objective of the study was to find out existing structure of education in Andhra Pradesh with respect to, (i) physical facilities, (ii) staff pattern, (iii) financial requirements, (iv) pupil's perception of the system, (v) teacher's perception of the system, (vi) the perception of parents of school-going children, (vii) the decision-making system, (viii) different kinds of school management, and (ix) the quality of service rendered as indicated by the percentage of passes.

The study was restricted to two districts in Andhra Pradesh. From each district headquarters three secondary schools and two primary schools were chosen. These schools belonged to different managements—private, government, zila parishad, municipality and missionary management. From each school four staff members, five parents, ten students, three managers and two administrators were taken. The students, staff, administrators, members of management and parents were interviewed through a scheduled interview technique.

The findings of the study were: 1. In the municipal high schools, the physical facilities were in a bad shape, there being no furniture, dilapidated school buildings, etc. Other schools were also bad in physical facilities, except for the missionary schools where the children were neatly dressed and the teachers also followed novel methods of teaching. 2. Certain government schools and private schools were situated in areas where there was no facility of drinking water. 3. Teachers in zila parishad schools used to remain regularly absent. The students did not study. They spent their time in other activities. 4. The students in the schools showed their interests in sports, sketching, sewing, debating and other cultural activities. 5. Parents of the children wished to have a free education facility and further showed willingness to pay fees if good education was available at a nominal cost. 6. Most parents were satisfied with the load of homework of their children. 7. Parents showed agreement with the teachers on the issue of desirability of a change in curriculum and lessening of work-load. 8. Most of the parents agreed that they were giving education to their children for developing their employment potential. 9. The end results of educational set-up were measured by the rate of literacy, the growth in the number of schools, results in public examinations, which the teachers felt was a measure of quality of education. 10. There was high degree of dissatisfaction, both among officials and the teachers, regarding the prevailing physical conditions and academic standards. 11. The administrative procedures were time-consuming with respect to disbursement of salaries of temporary teachers, officers who had been transferred, backlog of provident fund, etc. 12. Teachers felt insecure and under pressure for fear of transfer. 13. There was a strong feeling among the teachers that disciplinary action was taken by the management arbitrarily and without following rules and regulations. 14. Regarding the physical conditions of the schools, most of the sample subjects stated that lack of funds was a major constraint. 15. The gazetted officers and deputy inspectors during inspection laid emphasis on the administrative aspect of checking the attendance and maintenance of records at the cost of academic work. 16. Managements confessed that they did not get the time to go through the reports of the inspectors. 17. Most of the teachers felt that inspectors did not inspect classes objectively and inspectors were not efficient in handling their duties.

*1278. SALUNKHE, D.D., *Marketing of Educational Services: A Case Study of Konkan Krishi Vidyapeeth, Dapoli, Maharashtra,* Ph.D. Com., Shi. U., 1986

The objectives of the study were (i) to study the working of the Agricultural University with reference to its objectives, (ii) to study the university's distribution mechanism and how far it was successful in distributing its products and services, (iii) to study consumers' opinions, experiences and expectations regarding the products and services, and (iv) to develop a model for effective distribution of products and services of the organization under study.

The jurisdiction of the Konkan Krishi Vidyapeeth (KKV), the institution under study comprised five districts of the Konkan region of Maharashtra. A multi-staged random sample of 350 farmers from 52 villages of 32 talukas in four districts constituted the sample. The data were collected through structured interviews of the farmers selected. Information was also collected through published and unpublished material of the university, visits and observation of the institution and discussions with the scientists in the KKV. The data were analysed using simple percentages.

The major findings of the study were: 1. Low socio-economic conditions, illiteracy and poverty of the farmers led to a low degree of receptivity and knowledge for adoption of modern technology. 2. The farmers in a large proportion (75 per cent) were unaware of the existence and functioning of the university. 3. A good proportion of the farmers (80 per cent) who were aware of the university and its activities took the benefits of its services. 4. The university functioned with an internal orientation and not an external one, i.e. not with a market orientation, which in fact should be the model for agricultural universities.

1279. SAMPURANSINGH, *A Study of School Climate, Leadership Behaviour and Moral Development of the Heads of Elementary and Secondary Schools,* Ph.D. Edu., Pan. U., 1985

The objectives of the study were (i) to determine the patterns of organisational climate, leadership behaviour and moral development in the elementary and secondary schools, (ii) to examine school to school differences on various dimensions of organizational climate, leadership behaviour and moral development, (iii) to examine the nature of differences between the elementary and secondary schools in respect of organizational climate of schools, leadership behaviour and moral development of heads of these schools, (iv) to examine the relative variability of organizational climate, leadership behaviour, and moral development of heads of elementary and secondary schools, (v) to determine the relationship between different dimensions of organizational climate, leadership behaviour and moral development.

The sample for the study included staff and heads of one hundred institutions comprising 50 primary schools and 50 secondary schools. In all, 421 teachers and 100 heads formed the sample of study. They were administered the following tools: (i) the Halpin and Croft Organizational Climate Description Questionnaire, (ii) the Ohio Leadership Behaviour Description Questionnaire, (iii) the Rest Defining Issue Test of Moral Judgement (1979).

The findings of the study were: 1. Elementary and secondary schools were found to be similar in teacher behaviour in a task-oriented situation, teacher thinking with regard to their principals and the principals' efforts to move the organization. 2. Elementary school teachers were higher in esprit and intimacy than secondary school teachers. 3. On almost all dimensions of school climate, elementary schools were found to be more variable than secondary schools. 4. The leadership behaviour of the two types of schools did not differ. 5. The heads of the two types of schools equally varied in leadership behaviour. 6. On moral development also, heads of the two types of schools were alike. 7. Twenty two per cent of the elementary and 14 per cent of the secondary schools were high on disengagement. 8. On hindrance 22 per cent of the elementary and 16 per cent secondary schools were high. 9. On esprit, the percentage of elementary and secondary schools placed in the high category was 16. 10. Sixteen per cent of the elementary and 18 per cent of the secondary schoools were high on intimacy. 11. Twenty-four per cent of the elementary and eight per cent of the secondary schools were high on aloofness. 12. On production emphasis, 14 per cent of the elementary and 20 per cent of the secondary schools were high. 13. On the dimension of thrust, 12 per cent of the elementary and 18 per cent of the secondary schools were high. 14. On the dimension of consideration 18 per cent of the elementary and 16 per cent of the secondary schools were high. 15. In the case of leadership behavior, 22 per cent of the elementary and 14 per cent of the secondary schools were high on initiating structure. 16. In the case of moral development, 14 per cent of the elementary and 22 per cent of the secondary schools were high. 17. Consideration was most dominantly related with all other dimensions of school climate in both elementary and secondary schools. 18. The relationship between initiating structure and consideration was high and positive. 19. Initiating structure as a dimension of leadership behaviour was significantly related to the dimensions of school climate like espirit, intimacy, production emphasis, thrust and consideration.

1280. SARAF, S.N., and TAPLOO, A., *Study of Educational Policy and Planning in India—Role of Planning Commission—Current Status and Future Perspective,* NIEPA, 1986

The main objectives of the study were: (i) to examine how the evolution of educational policies and planning in India was influenced by the overall national developments before and after Independence, (ii) to examine the contribution made by various commissions and committees on education and other developmental

sectors, processes and techniques involved in the formulation of educational plans at different levels; and to examine role of the Planning Commission, Ministry of Education, and the state government in the formulation of policies and programmes.

The data were collected through a study of records and reports and information gathered through interviews.

The major findings of the study were: 1. For strengthening of planning management and policy formulation, the creation of a professional cadre, an Indian Educational Service, was essential. 2. A national system of education with a co-curriculum might be organized. 3. Pace-setting institutions might be started to promote national unity and social integration. 4. The role of the Regional Colleges of Education of the NCERT needed to be redefined so that they became effective instruments of trying out educational innovations and became laboratories for experimenting with pragmatic programmes. 5. As a measure towards professionalization of the cadres, short-term induction programmes, on the lines of the National Academy of Administration, Mussoorie, needed to be organized periodically by the NIEPA and NCERT for key-level personnel in order to introduce them to the concepts and techniques of educational planning, financing, management, evaluation, formulation of educational innovation projects, etc. 6. Education has to be linked with other developmental agencies. 7. The existing maintenance and control oriented machinery should be strengthened to function as a development-oriented organization. 8. Training for integrated micro-level planning should be an essential component of administrative machinery. The district should be considered as a unit of educational planning, management, evaluation, and finance. Educational development programmes should be implemented as project-based models.

1281. SEETHARAMU, A.S., *Planning and Management of Education within Integrated Rural Development*, ISEC, Bangalore, 1984 (IIEP, UNESCO sponsored)

This study was concerned with the planning and management of education within integrated rural development projects. The specific objectives of the study were, (i) to examine the planning, management, monitoring and integration of education in selected rural development projects, (ii) to study the degree of relationship among diverse socio-economic correlates of life, keeping education in focus, and (iii) to analyse the dynamics of participation of rural people in development projects.

The study was set in the Yaliyur cluster of villages of Channarayapatna Block in Hassan District. The study covered all the 422 occupied residential households, 31 contact farmers and 28 agriculture assistants of the Yaliyur cluster as well as sixty TRYSEM beneficiaries for the whole block, out of which three were from the Yaliyur cluster. Data with respect to the delivery system and development programmes operating in the district, block and cluster were collected from district and block officials and from primary census abstracts. For purpose of testing hypotheses regarding planning and management of education within integrated rural development projects, the programmes of T & V system of extension education in agriculture and training of youth for self employment (TRYSEM) were intensively studied. Data were collected through interviews, document analysis and participant observation.

The major findings were: 1. The participants in rural development programmes tended to a self-selected sample of generally better educated, better informed and economically better off sections of society. The observed relationship between formal education and participation in non-formal development education programmes was not necessarily a desirable one. It augured badly for the success of integrated rural development projects in general. 3. It was observed that the poor performance of the two projects could be traced to the faulty planning and identification of project participants, lack of grassroots level participation and absence of effective linkages between different project elements. 4. The observations suggested the relative vulnerability of nonformal education and training programmes in rural development. Their effectiveness was contingent upon, integrated with, and reinforced by non-educational factors. This was not very true in the case of formal education.

1282. SEN, A.J., PAL, M.N. and GHOSH, S.K., *Calcutta University Examination System—A Management Study*, IIM, Calcutta, 1981

The main aim was to understand the nature of work of the sections under the Controller of Examinations, and

anlyse the work-load and procedures of each section in terms of the resources available and to suggest changes in work procedures and an alternative organizational set-up which would provide greater efficiency.

A detailed review of the present system of work in the controller's department was made. The work processes in similar other organizations with experience of conducting examinations involving large numbers of candidates were also studied. An alternative system which would ensure speedy announcement of accurate results was proposed.

The study revealed that: 1. The long delay in the announcement of results, inaccuracies in them and their incomplete nature could not be attributed to the incompetence of any particular section. The fault lay with the entire procedure. 2. The prevailing procedure employed in conducting examinations, though quite adequate in the past, was becoming increasingly unworkable owing to the huge number of students and complex and fast-changing university regulations regarding examinations.

1283. SEQUEIRA, D., *A Study of Managerial Styles and Achievement Motivation in relation to Institutional Efficiency,* Ph.D. Edu., MSU, 1986

The hypotheses that the present study attempted to test were: (1) There is no significant relationship between a particular managerial style and levels of n-Ach. among educational and industrial managers. (2) There is no significant difference between the dominant managerial styles of educational managers and those of industrial managers. (3) There is no significant difference between the mean n-Ach. score of educational managers and that of industrial managers. In addition, four research questions were put forward to obtain answers pertaining to the patterns of performance of educational managers with high and low n-Ach. scores as well as of industrial managers with high and low n-Ach. scores.

The sample for the study comprised 15 educational managers and 15 industrial managers belonging to institutions randomly selected from a list of industries and English-medium schools and colleges of Bangalore rated as relatively efficient by a panel of experts. The tools used were, (i) the Blake-Mouton Self Assessment of Key Managerial Orientations (SAKMO), and (ii) Murray's Thematic Apperception Test (TAT). SAKMO was used to classify the sample into a 9.1 managerial style group representing those having high concern for production and low concern for people, and a 1.9 managerial style group representing those having low concern for production and high concern for people. TAT was used to measure n-Ach. In addition to administering these tests, the subjects and their subordinates were interviewed and also, the subjects were observed while they worked. A case study approach was taken to study individual subjects. The statistical techniques used in data analysis were biserial correlation, chi-square test and t-test.

The study generated the following major findings: 1. There was a significant positive relationship between the 9.1 managerial style and high n-Ach. scores. 2. The mean n-Ach, score of the 9.1 style managers was more than double the mean n-Ach. score of the 1.9 style managers. 3. There was no significant difference between the dominant managerial styles of educational managers and those of industrial managers. 4. There was no significant difference between the mean n-Ach. scores of educational managers and industrial managers. 5. The managers from both education and industry who had higher n-Ach. scores seemed to be more specific and clear in identifying their immediate and long term goals. 6. Managers with a lower n-Ach. score seemed to follow a 1.9 managerial style and had a high concern for people and low concern for production.

The study implied that programmes on sensitivity, human relations and communication could be provided to 9.1 type educational managers to rectify their lack of concern for people. Similarly, training packages specifically designed to help raise levels of production and efficiency and also achievement motivation development courses could be given to 1.9 type managers lacking in concern for production.

1284. SHARMA, J.D., *A Critical Appraisal of the Implementation of School Improvement Plan in Rajasthan,* SIERT, Rajasthan, 1975

The objectives of the study were (i) to examine the implementation of school improvement plans critically in the light of the recommendations made by the Indian Education Commission (1964–66), (ii) to find the level of efficiency of secondary and higher secondary schools in preparing their institutional plans, (iii) to find the level of achievement of schools in the light of the plans prepared by them, and (iv) to suggest constructive measures for increasing the effectiveness of plans in planning and education.

The procedure adopted for this study was the normative survey method comprising the examination and analysis of the plans and completion of the self-evaluation pro-formas received from 100 headmasters of secondary and higher secondary schools of the state. Two tools were prepared for the study, a checklist and a self-evaluation pro-forma. The purpose of the checklist was to find out the level of efficiency in the planning of the school improvement plan. The self-evaluation pro-forma was used by the headmasters who sent a copy of the school improvement plan of their schools. They were requested to evaluate the progress of their schools since the time such plans began to be prepared.

The major findings were: 1. The state of Rajasthan had implemented the scheme of qualitative improvement in school education seriously. 2. The state had developed a proper system for recording the implementation of the improvement plans. 3. The state had a well-defined concept of school improvement planning. 4. The schools prepared school improvement plans on the lines of guidance material provided by the Department of Education, Rajasthan. 5. The examinations of these plans showed that 64 to 100 per cent of schools were preparing plans. 6. The planning of each item of improvement was found to be of a low standard. 7. The overall estimate of achievement in the major areas of improvement on the basis of self-evaluation by the headmasters was 70 to 74 per cent.

1285. SHARMA, O.P. *A Comparative Study of the Administration of Boards of School Education in India,* Ph.D. Edu., HPU, 1987

The main objectives of the sudy were to investigate (i) the system of administration and functions of different Boards of School Education in India, (ii) the successes and failures in their administrative set-up, and (iii) to suggest remedial measures for reforming the functioning of these boards in a comparative perspective, with special reference to the Himachal Pradesh Board of School Education.

The historical and normative survey methods were followed in the conduct of the study. The information pertaining to different Boards of School Education in respect of different Acts, Rules and Regulations and various court decisions concerning their functioning was collected by making documentary analysis of primary and secondary sources. A questionnaire and an opinionnaire were also developed and used for collecting various data.

The findings of the study were: 1. The aims and objectives of some of the boards were ambiguous and had not been clearly defined. In some cases there was more than one board in a state with different names. The composition of these boards was not uniform and democratic. In the appointment of the chairman of these boards, different criteria were followed: in some, the chairman was an educationist, while in others he was a non-academician. The secretary of board, a principal executive officer, was appointed by the state government. However, the criteria of appointment differed from board to board. 2. The main weakness in the functioning of these boards was the absence of a well-organized system of personnel administration. The pay scales and other service conditions of the employees were different in different boards. Generally, all the boards followed the pay scales of the respective state governments. 3. Some boards were paying more attention than others to academic development of students and teachers. All the boards prescribed courses and text books for different levels of school education, from grades I to XII. Some boards ran correspondence courses also and published journals and annual reports. All the boards, except those of Rajasthan and Madhya Pradesh, were housed in rented buildings. A Council of Boards of School Education in India had been formed as a common forum for coordination among the various boards.

1286. SHARMA, O.P., *University Grants Commission in India: A Study of its Role, Organisation and Functioning,* Ph. D. Pol. Sc., Vik. U., 1981

This study investigated the organization and working of the UGC and the role it played up to the Fourth Plan, i.e. 1973-74 in the Indian system of higher education. By making a critical and analytical study of the functioning of the UGC up to 1973-74, it aimed at pointing out those areas of UGC activities where reforms were needed.

Both primary and secondary sources were employed for collecting information. The information was analysed through content analysis and also by computing percentages.

The major findings were: 1. There was lack of evaluation and assessment of programmes and their impact, absence of mechanisms and methods (to some

extent due to absence of powers) to get recommendations of various experts' committees translated into action, lack of overall perspective planning and research in problems of higher education. 2. There was absence of an adequate mechanism for coordination with other bodies concerned with overall national planning or with other sectors of education and research. 3. The UGC did not use its powers of inspection and stoppage of grants. Under the circumstances, expansion went on and the efforts make by the UGC for promotion, coordination and maintenance of standards remained either unimplemented or their effect was never evaluated.

1287. SHARMA, R., *Student Morale as a Correlate of Educational Environment in the School,* Ph.D. Edu., Pan. U., 1983

The objectives of the study were (i) to find out the correlation between educational environment and morale of students of different types of high schools of Chandigarh, (ii) to identify the educational environment of government single-shift schools of the urban area, private single-shift schools of the urban area and government single-shift schools of the rural area, and (iii) to identify the students' morale of government single-shift schools of the urban area, government double-shift schools of the urban area, private single-shift schools of the urban area and government single-shift schools of the rural area.

Four different types of schools constituted the sample of study: (a) government single-shift schools of the urban area; (b) government double-shift schools of the urban area; (c) private single-shift schools of urban area; (d) government single-shift schools of the rural area. Three schools of each of these types were taken and from each of these schools 50 students of the ninth class were selected. Thus the sample of study consisted of 12 schools and 600 students of class IX. The sample subjects were administered the following tools: (i) the Educational Environment Questionnaire consisting of 50 questions categorized in seven groups, viz., the school plant and equipment of building for proper education, the use of curriculum, qualifications of teachers, evaluation of education, school policy, human relations, teacher-student, student-student, principal-teacher and parent-teacher relations, and general feeling about the school, (ii) The School Morale Scale related to seven aspects of school, viz., school plant, quality of instruction and intructional material, administrative personnel, rules and regulations, community support of schools; relationship with other students, teacher-student relationships, and general feeling about school morale.

The findings of the study were: 1. There was a positive correlation between educational environment and student morale in the case of private single-shift schools of the urban area. 2. The mean scores on educational environment of government single-shift schools of the urban area were significantly higher as compared to those of government double-shift schools of the urban area. Private single-shift schools of the urban area and government single-shift schools of the rural area also significantly differed on mean scores on educational environment. F-ratio was significant in all the seven categories of educational environment. 3. The highest t-ratio was found in the category, 'Use of curriculum', between government single-shift schools of the urban area and private single-shift schools of the urban area. 4. Significant differences existed among different types of schools on the criterion variable of student morale. The mean scores of government single-shift schools of the urban area were significantly higher than those of government double-shift schools of the urban area, private single-shift schools of the urban area and government single-shift schools of the rural area. In all the seven categories of student morale, F-ratio was significant. The highest F-ratio was found in the category on 'General feeling about school morale'. The highest t-ratio was found in the category on 'Quality of instruction and instructional material' between government single-shift schools of the urban area and government single-shift schools of the rural area.

1288. SHARMA, R., *A Study of the Administrative Problems of the Double-Shift Secondary Schools of Rajasthan,* SIERT, Rajasthan, 1968

The objectives of this study were (i) to find out the problems of double-shift secondary schools of Rajasthan, (ii) to make a comparative study of double-shift private, aided and government institutions, (iii) to find out the problems faced by the headmasters of these schools, and (iv) to make suggestions to the Education Department on how to solve them. The hypotheses were: (1) There is no significant difference in the level of solving the administrative problems of the double-shift institutions run by government and those

run by private agencies. (2) There is no significant difference in the density of the administrative problem-solving approach between the girls' and the boys' institutions. (3) There is no significant difference between the supervisory authorities and the headmasters of these schools in understanding administrative problems.

The total population of such schools in the state of Rajasthan was covered by the study. The tools consisted of check-lists for the headmasters and supervisory authorities of these schools who were asked to rate the administrative problems on a five-point scale.

The major findings were: 1. It was difficult to adjust 40 minutes for each period in both the shifts. 2. There were problems in changing the time according to the weather and the convenience of students. 3. Mismanagement in changning the seating arrangement and damage to furniture was an acute problem. Problems related to teaching were disturbance in teaching when cocurricular activities were given due time, lack of contact between teachers and students of the two shifts, shortage of time for remedial classes and games, inconvenience in joint staff meetings, supervision and coordination of activities, indiscipline among students, inadequate use of library and reading-room facilities and difficulty in adjustment of periods of teachers on leave.

1289. SHARMA, R.C., *A Study of the Position of Inspection by District Education Officers*, SIERT, Rajasthan, 1985

The objectives of the study were to find out (i) the stay of district education officers (DEOs) at their posts, and (ii) the number of inspections done by them.

The study covered 20 DEOs (Boys) and DEOs (Girls). The data about the examination results of the schools, reactions of the education officers on them, and the information collected through school inspection pro-formas were analysed.

The study revealed: 1. The stay of a DEO (Boys) at his office was 11.4 months in 1981-82 and 11.7 months in 1982-83 whereas for DEO (Girls) it was 12 months in both sessions. 2. Only 45 per cent of the schools were inspected by DEO (Girls).

1290. SHARMA, R.C., *A Study of Retirements and Frequency of Transfers and Promotions of District Education Officers*, SIERT, Rajasthan, 1978

The objectives of the inquiry were to study (i) the academic and professional qualifications of district education officers (DEOs) at the time of their appointment, (ii) the system of their working, and (iii) their retirement and transfers and promotions.

The study covered 109 DEOs of 25 districts of Rajasthan who held the post from 1 July 1976 to 30 July 1982. The survey method was employed. Pro-formas for getting information about promotions and transfers were used, and for the position of their stay at one place office records were examined.

The major findings were: 1. With their academic growth the DEOs were able to provide a better guidance in academic activities. 2. Fifteen per cent of them were promoted to the present post after serving for 20 to 25 years and 35 per cent after doing so for 35 years. 3. Before the age 43 nobody became a DEO. 4. Seventy-six per cent got the post after they were 50. 5. They were promoted to the next higher post after 18 to 36 months. 6. On an average, nine of them retired every year. Six per cent of them did so in less than six months. 7. Fifty per cent of them were transferred within one year and 76 per cent in two years. Thus one district got the benefit of a DEO's services for a very limited time. 8. These posts lay vacant for long durations. In three districts they were vacant for six months and in 24 for more than that. Due to the frequency of transfers and promotions and retirements, the average stay of a DEO in a district was nine months and the range was six to twelve months. So they were not able to function effectively.

1291. SHARMA. V.S., *Health Scheme in Schools—An Evaluation*, SIERT, Rajasthan, 1979

The study aimed at the evaluation of the School Health Scheme being run jointly by education and medical and health departments in Rajasthan from three angles, (i) the position of health examination of students, (ii) the vaccination facilities provided by the health department, and (iii) provision of personnel and physical facilities in schools under this scheme.

The study covered 56614 students of 326 schools in

nine districts of Rajasthan. The survey method was used. Quarterly school health progress cards, interview schedules and school records were the main sources of data.

The major findings were: 1. Health examination of only 33 per cent of the students was done and their records could not be maintained because health cards were not available. 2. As the vaccination drive was not covered by this scheme, the schools did not pay any attention to it. 3. Except in Kota and Udaipur districts, no interest was shown in providing latrines and urinals. 4. Cement tanks were available in 55 per cent and first aid boxes in 12 per cent of the schools. 5. Forty per cent of the schools had teachers trained in this scheme. 6. There were enough posters and charts on health in these schools. 7. The scheme did not show expected results, yet it had been successful in creating awareness about health.

1292. SHEKHAWAT, B.S., *An Evaluation of the Organizational Aspects of Three Hour Schools,* SIE, Rajasthan, 1972

The objectives of the study were (i) to assess the extent to which the Three Hour Schools had been successful in achieving their objectives, and (ii) to collect information about the real conditions of these schools and make suggestions for improving them.

The survey covered three Panchayat Samities—Rajnagar (Udaipur), Dudu (Jaipur) and Neem Ka Thana (Sikar) in the rural area, in addition to two urban areas—Shahpura (Bhilwara) and Neem Ka Thana town (Sikar). Fifty-five schools in all were taken up for the study. The questionnaire for teachers of these schools included identification information, enrolment, attendance, school timings, holidays and vacation, inspection, etc. A similar questionnaire was used for Education Extension Officers and Development Officers of the Panchayat Samities selected for the survey. For observation of schools a separate proforma was developed.

The major findings were: 1. Three Hour Schools provided ample opportunities for education of the children of these villages. 2. The indifference of the parents towards education, before these schools were opened, gave place to a positive attitude. 3. It was realized that special efforts were needed to bring in more girls to schools as their number was considerably smaller than that of boys. 4. The expectation that the teachers would stay in the villages was not fulfilled. 5. The enthusiasm, sincerity and the faith in the basic principles of the scheme of the teachers and officers, which was there in the beginning, waned as time passed. 6. The objectives were not achieved as, after the transfer of the teachers and officers involved in the beginning of the scheme, they were replaced by other who were not fully conversant with it. 7. It was proposed to adjust the school timings and vacations on the basis of the suggestions made by the parents but it was found to be unfeasible. 8. According to the development officers and education extension officers, the academic standard of these schools was lower than that of traditional ones. So the parents preferred to send their children to the latter. 9. Teachers and education extension officers admitted that teaching materials were not adequate and were not supplied in time. 10. There was lack of supervision of these schools by officers.

***1293.** SHYAM SUNDER, *An Investigation into the Problems of Absenteeism in Delhi Schools,* Ph.D. Edu., Del. U., 1983

The objectives of the study were (i) to find out the degree of acuteness of absenteeism in schools of Delhi, (ii) to identify the type of absence prevailing in schools, (iii) to determine the relationship, if any, between absenteeism and socio-economic status of the family, (iv) to ascertain the relationship, if any, between absenteeism and perception of problems relating to home, health, school and interpersonal relations, (v) to find out certain personality variables specifically related to absenteeism, and (vi) to examine to relationship, if any, between absenteeism and intelligence.

The study followed a descriptive method. A sample of 24 schools was selected randomly. From each of these schools students who remained absent for more than 50 per cent of the school hours were taken. In this way 95 students of the 9th class were selected and an equal number of regular students were selected for comparison. They were administered the following tools: (i) the Kulshrestha Socio-Economic Scale, (ii) the locally prepared Problem Checklist, (iii) the 16 PF Personality Inventory, and (iv) Raven's Progressive Matrices. The data were analysed with the help of ANOVA, t-test and factor analysis.

The findings of the study were: 1. The incidence of

absenteeism was more in government schools (18 per cent) than in aided schools (13 per cent). The type of school with respect to its organization and social milieu had an impact on the attendance in a school. 2. Absentees in most of the cases belonged to poor families. 3. Socio-economic status of the family and the domestic life to which the child belonged played a great role in school absenteeism. 4. There were more chances of absentees being maladjusted. 6. Absenteees appeared more depressed, suffered more from paranoid tendencies and were emotionally more unstable. They lacked enthusiasm in work, resented instructions, had preference for their own selected group and showed disregard for moral and social ethics. They had low scores on positive personality variables. 7. Absentees seemed to be intellectually below average. 8. Most of the absentees suffered from poor intelligence and hence lacked the required academic competence. 9. Absentees had inverse relationship with regular students as far as perception and performance were concerned. 10. The two factors derived after factor analysis suggested that absentees were maladjusted and immature. 11. Absentees were dissatisfied with their social setting, perceived more problems around, and had less harmonious interpersonal relations. 12. Pessimism, inferiority feelings, anxiety, ego-defensiveness and depression pushed them into a world of fantasy and indolence. Most of them had antisocial behaviour and more often than not they were unbalanced and irrational. 13. They avoided the threatening reality. Failure and an indefinite, unsettled career were apparent worries for them. 14. Personality profiles of a few representative cases strengthened the indication of their being emotionally unstable, intellectually backward and social maladjusted.

1294. SIE (Assam), *Case Studies of Single Teacher Schools of Jorhat Sub-Division*, 1968

The main aim of the study was to bring to light many unseen problems of single-teachers schools and suggest ways and means for removing them.

Six single-teacher schools were selected round about Jorhat sub-division. Care was taken to cover a representative sample as far as practicable. A case study of each school was made.

Some of the major findings were : 1. The local community mostly decided to set up a school without considering its primary requisites. 2. After the school was taken over by the department, local enthusiasm became a spent force. Community cooperation, in most cases, became a far cry. 3. The teacher was left to himself with his burden. 4. Teachers were not properly trained for multiple-class teaching. 5. All the schools had very unsatisfactory conditions. So far, nothing constructive had been done to improve conditions.

1295. SINDHI, H.C., *A Study of College Administration in Punjab*, Ph.D. Edu., GNDU, 1984

The objectives of the study were (i) to study the composition and functions of the managing bodies of the privated colleges in Punjab, (ii) to study the position and functions of the principals of these colleges, (iii) to study the procedure of recruitment of the teaching staff and their promotion, (iv) to study the service conditions of the staff, (v) to study the modes of penalising the staff for poor results or violation of service rules, (vi) to study teachers' participation in the day-to-day affairs of college administration, (vii) to study the academic administration of the colleges, (viii) to study the administrative policies concerning student affairs and their attitude, and (ix) to study the interaction and communication system of college administration.

The data for the study were collected through a mailed questionnaire. Those who returned the questionnaire formed the sample of the study. So the sample consisted of 20 principals, 452 college teachers and 1405 students belonging to colleges affiliated to three universities of Punjab (Panjab University, Guru Nanak Dev University and Punjabi University). The questionnaire related to the composition and functioning of managing bodies, personnel administration, financial and academic administration, administration of student affairs, etc. Along with the above sample, 32 members of various private managing bodies of colleges, and 120 parents of college students also formed the sample of the study. These sample subjects were interviewed about the functioning of the colleges and their managements.

The study revealed: 1. The number of members of managing bodies varied from 14 to 36. 2. Principals of colleges were taken as members of the managing bodies. 3. There was no teacher representation in the central managing bodies. 4. There was no participation of students in the meetings of the managing bodies. 5. The main functions of managing bodies were framing of plans and policies for college administration, recruitment or dismissal of employees,

regularization of services of the staff, checking and supervising working of the college, hearing grievances of employees, etc. 6. There was groupism in managements which affected the functioning of the managing bodies. 7. There was dissatisfaction among the teachers about the attitude of the managing bodies towardes their employees. 8. The qualifications of teachers were in confirmity with the rules laid down by the university for teaching various subjects but most of the teachers were not interested in improving their qualifications after entering the profession. 9. Thirty-five per cent of the principals were selected on a merit basis while 65 per cent did not frankly answer how they were selected for the post of principal. 10. Ninety-eight per cent of the teachers felt that they were selected on the basis of merit. 11. Promotional avenues in the colleges were almost nil as only eight per cent of the teachers could be promoted either as heads of department or as principals. 12. Increments were given to teachers regularly. 13. Ninety-five per cent of the teachers were confirmed on the expiry of their probation period. 14. Dismissal of teachers was rare. Only in five per cent caes waa the probation period of teachers extended on account of poor performance. 15. Only one per cent of the teachers were denied increment as a penality. 16. Only one per cent of the teachers were suspended owing to charges levelled against them. 17. There was no regular system of providing incentive to the teachers for their professional growth. 18. All the teachers were of the opinion that their salaries were not keeping pace with the rising cost of living. 19. Teachers of some private colleges had to surrender a part of their salary of the management as donation/charity to the educational institution. 20. Seventy per cent of the principals reported that they sought the teachers' assistance and their cooperation for effective college functioning. 21. In general, every month, one staff meeting was held and the average duration of each meeting was one hour. 22. Principals selected teachers for various administrative, academic and cocurricular activities on the basis of seniority but they gave considerable weightage to factos of responsibility, suitability and ability for particular functions. 23. Ninety-six per cent of the principals claimed that they supervised teaching. 24. Most of the principals rarely visited hostels and canteens and never visited laboratories and libraries. 25. Twenty-eight per cent of the principals had clashed with teachers owing to their irregularities. 26. Thirty per cent of the teacher showed dissatisfaction with the system of allocation of the teaching load and other responsibilities. 27. Twenty-three per cent of the teachers shared responsibilities of college administration as registrar, programme officer, hostel warden, convener of college committee, etc. 28. Teachers' participation in the college administration was mostly limited to a consultancy or advisory role. 29. There was great variation in the expenditure on cocurricular activities from college to college. 30. The budget was prepared by the accounts branch of each college and was forwarded to the managinfg body of the college for sanction. 31. Audit of college accounts was done regularly. All the accounts were prepared and maintained by the accounts branch of the college. 32. Principals were mostly dependent on the ability, sincerity and acumen of the accountant of the college. 33. Ninety-two per cent of the teachers reported that they prepared their lesson regularly. Sixty-nine per cent of the teachers helped students to overcome their education disabilities. 34. Most of the teachers reported extensive use of the lecture method in their teaching. 35. Fifty-five per cent of the teachers considered tuition work as good for the students who went for private coaching. 36. In the opinion of most of the teachers, the students were nonpromising, drifting, neglectful and unrespectful. 37. Seventy per cent of the students wanted changes in the existing syllabi as these did not help them to gain self-confidence, and any practical knowledge. 38. Students' associations existed in 85 per cent of the colleges, other types of societies or associations or clubs also existed in 87 per cent of the colleges. The National Service Scheme operated in 98 per cent of the colleges. 39. Most of the colleges situated in rural areas did not have canteen facilities. 40. Financial aid to selected students was given by all the colleges. 41. Students had no say in the academic and financial matters of college administration. 42. Ninety per cent of the principals reported that they had easy access to government officials as and when they needed any help or information from the government. 43. Most of the principals had good relations with the students. Ninety-six per cent of the principals had a very close relationship with some of the members of the staff with whom they shared their views on issues confronting college administration. 44. Most of the teachers felt that strikes, whether observed by teachers or students, surely had adverse effect on the academic programmes of the college.

1296. SINGH GOPAL, *A Socio-psychological Study of High School Dropouts*, Ph.D. Edu., Kum. U., 1984

This study was designed to assess the social and personality characteristics of high-school dropouts. It also aimed at comparsion of dropouts with non-dropouts as regards their personality characteristics, social variables and academic achievement.

The sample for the study consisted of 200 dropouts and 200 non-dropouts selected randomly from 38 high schools and intermediate colleges in Almora district. Initial information about the dropouts and non-dropouts was collected with the help of a biodata form devised by the investigator. Information about their socio-economic status was collected with the help of the Socio-Economic Status Scale standardized by Kulshreshtha. Kapoor and Mehrotra's Hindi adaptation of Cattell's HSPQ was administered to the students for assessment of personality characteristics.

The main findings of the study were: 1. Male dropouts were found low in intelligence, more aggressive, toughminded, uncontrolled and with more tensions than the male non-dropouts. 2. The female dropouts were low in intelligence, affected by feelings, shy, toughminded and more insecure than the female stay-ins. 3. There were significant differences as regards socio-economic status among the droputs and stay-ins. 4. There was no significant difference as regards socio-economic status among the female dropouts and stay-ins. 5. Parents of the dropouts were less educated than the parents of the stay-ins. 6. A large proportion of the dropouts were from large-sized families. 7. Dropouts had lower academic achievement than the stay-ins.

1297. SINGH, R.P., *A Study of Learning Environment of Achieving Classes of Rajasthan Schools, Jialal Institute of Education*, Ajmer, 1984 (NCERT financed)

The major objectives of the inquiry were (i) to identify and analyse the classroom climate of rural and urban schools, (ii) to study the relationship between the classroom climate and general classroom behaviour, (iii) to compare the classroom climates of classes having male and female teachers, (iv) to study the relationship between students' perception of teachers' classroom behaviour and socio-emotional tone of the class, and (v) to compare the socio-emotional climates of high and low achieving classes.

The sample was drawn from 15 high achieving and an equal number of low achieving higher secondary schools of Rajasthan. From each class XI of these schools, five high achieving pupils and five poor achievers were included in the sample. The tools used for data collection were a student information schedule to assess self-concept of pupils, their personality traits and their cognitive traits, Raven's Standard Progressive Matrices, Jalota's Group Test of Mental Abilities, the Socio-economic Status Scale of B. Kuppuswamy, a Pupil Classroom Behaviour Schedule adopted from Spaulding's Coping Analysis Schedule and Learning Environment Inventory by Anderson and Welberg.

The major findings were: 1. Pupil's academic achievement was related to the types of management. Private schools, particularly mission schools, had high achieving students. 2. Socio-economic status of students had a significant relationship with academic achievement. Pupils of low socio-economic status did not achieve high. 3. Female teachers had a greater impact in the creation of a motivating classroom learning environment. 4. Classroom climate significantly affected pupil's academic achievement. 5. Though rural schools had a more conducive learning environment, most poor achieving schools were rural schools. 6. Classroom climate affected pupil's classroom behaviour.

The main educational implication of the study is that it is necessary to see that a motivating classroom climate is generated in the classroom by maximum human interactions—interaction between pupils and pupils and interaction between pupils and teachers.

1298. SINGH, S., *A Study of School Climate, Leadership Behaviour and Moral Development of Heads of Elementary and the Secondary Schools*, Ph.D. Edu., Pan. U., 1985

The objectives of the study were (i) to determine the patterns of organizational climate, leadership behaviour and moral development in the elementary and secondary schools, (ii) to examine school to school differences in various dimensions of organizational climate, leadership behaviour and moral development, (iii) to examine the nature of differences between the elementary and secondary schools in respect of the organizational climate of schools, leadership behaviour

and moral development of the heads of these schools, (iv) to examine the relative variability of organizational climate, leadership behaviour and moral development of heads of elementary and secondary schools, (v) to determine the relationship between different dimensions of organizational climate, leadership behaviour and moral development, and (vi) to enable the heads of the schools and teachers to have their perception of the entire institution.

The sample included 421 teachers and 100 heads of 100 institutions, including 50 elementary schools and 50 secondary schools of district Patiala (Punjab). On an average, five teachers from a high school and four teachers from a middle school and three teachers from a primary school were taken. The teachers and heads were administered the following tools: (i) Halpin and Andrew Organisational Climate Description Questionnaire; (ii) Ohio State Leadership Behaviour Description Questionnaire; (iii) Rest (1979) Defining Issue Test of Moral Judgement having reliability of 0.76

The findings of the study were: 1. Elementary school teachers were higher in esprit and intimacy than secondary school teachers. 2. Elementary school principals were higher on aloofness and production emphasis; on consideration, too they were higher than their secondary counterparts. 3. On almost all dimensions of school climate, elementary schools showed more variation than secondary schools. 4. In leadership behaviour the two types of school did not differ. In both the dimensions of leadership behaviour, that is, initiating structure and consideration, the principals of elementary and secondary schools were alike. 5. The heads of the two types of schools showed equal variation in leadership behaviour. 6. On the moral development also, the heads of the two types of schools were alike. 7. Twenty-two per cent elementary and fourteen per cent secondary schools were high on disengagement. 8. Sixteen per cent elementary and fourteen per cent secondary schools were low on disengagement. 9. Sixty-two per cent elementary and seventy-two per cent secondary schools were average on disengagement. 10. On teachers' perception of disengagement, significant differences amongst schools existed in case of both elementary and secondary schools. 11. On hindrance, sixty-four per cent elementary and sixteen per cent secondary schools were high showing that routine paper work and school heads tended to hinder teachers task accomplishment in these schools. 12. Twelve per cent elementary and 10 per cent secondary schools were low on hindrance; 64 per cent elementry and 74 per cent secondary schools were average on hindrance. 13. On teachers' perception of hindrance, there were significant differences amongst elementary schools, but no differences among secondary schools. 14. On esprit the number of elementary and secondary schools placed in high category was equal. On teachers' perception of esprit, significant differences existed in the case of both elementary and secondary schools. 15. Sixteen per cent elementary and 18 per cent secondary schools were high on intimacy. 16. Seventy-four per cent elementary and 66 per cent secondary schools were average on intimacy. 17. On teachers' perception of intimacy, significant differences existed among schools both in case of elementary and secondary schools. 18. Twenty-four per cent elementary and 8 per cent secondary schools were high on aloofness; 12 per cent elementary and 6 per cent secondary schools were low on aloofness; 64 per cent elementary and 86 per cent secondary schools were average on aloofness. On teachers' perception of aloofness, there were no significant differences amongst elementary schools, but there were average on aloofness. On teachers' perception of aloofness, there were no significant differences amongst elementary schools, but there were significant differences amongst secondary schools. 19. Fourteen per cent elementary and 20 per cent secondary schools were high on production emphasis; 12 per cent elementary and 14 per cent secondary schools were low on production emphasis. 74 per cent elementary and 66 per cent secondary schools were average on production emphasis. On teachers' perception of production emphasis, significant differences among schools existed both in case of elementary and secondary schools. 20. On thrust, 12 per cent elementary and 18 per cent secondary schools were high, 16 per cent elementary and 14 per cent secondary schools were low, 72 per cent elementary and 68 per cent secondary schools were average. On teachers' perception of thrust, elementary schools did not show any difference, while secondary schools showed significant differences among themselves. 21. On consideration, 18 per cent elementary and 16 per cent secondary schools were high, 14 per cent elementary and 18 per cent secondary schools were low; 68 per cent elementary and 66 per cent secondary schools were average. On teachers' perception of consideration, elementary schools showed significant differences amongst themselves. So did the secondary schools. 22. Talking of leadership behaviour, 22 per cent elementary and 14 per cent sec-

ondary schools were high on initiating structure, 16 per cent elementary and 10 per cent secondary schools were low on this dimension; 62 per cent elementary and 76 per cent secondary schools were average on initiating structure. On teachers' perception of initiating structure, significant differences among schools existed in case of both elementary and secondary schools. 23. On consideration, 18 per cent elementary and 12 per cent secondary schools were high, 12 per cent elementary and 12 per cent secondary schools were low, and 70 per cent elementary and 76 per cent secondary schools were average. On teachers' perception of consideration, significant differences among schools existed in the case of elementary and secondary schools. 24. Talking of moral development, 14 per cent elementary and 22 per cent secondary schools were high on this dimension; 22 per cent elementary and 24 per cent secondary schools were low on moral development; 64 per cent elementary and 54 per cent secondary schools were average on moral development. 25. Talking of relationship between the dimensions of schools climate, consideration was most dominantly related to almost all other dimensions in case of both elementary and secondary schools. Human treatment and consideration shown by the principal to his staff developed congenial climate. In the case of both elementary and secondary schools, the thrust was the dimension next to consideration which was most commonly related with other dimensions of school climate. 26. Talking about leadership behaviour, the relationship between initiating structure and consideration was very high. The initiating structure, which was the dimension of leadership behaviour, showed a significant relationship with five dimensions of school climate—esprit, intimacy, production emphasis, thrust and consideration. This was true of both elementary and secondary schools.

*1299. SINGH, V., *A Comparative Study of Administration of Selected Universities in India and Abroad,* Ph.D. Edu., Udai. U., 1978

The main objectives of the study were (i) to investigate certain significant aspects of the administration of universities in selected countries of the world, (ii) to compare the administration of universities in India and abroad in terms of these aspects, and (iii) to make suggestions for effective university administration.

The total number of universities included in the sample was 23 and the total number of countries where they were located was 11. An equal number of universities (that is four) were selected for study from each of these countries: The United States of America, England, Australia and India. The methods employed were survey and case study. The tools and techniques were: A self-made questionnaire, an administrative practices rating scale, an opinionnaire, an interview-schedule and document analysis.

A comparative picture of the administration of universities, as it emerged from the study, is presented below: 1. All the universities in different countries, which comprised the present sample, were established by charters or acts which were passed either by the central legislature of the country or a state legislature. 2. For making amendments in the statutes or regulations, two procedures are followed, viz; internal mechanism and involvement of an external agency. 3. Factors influencing amendments were four, viz., political pressure, a group of persons, the officers' desire and needs of the situations (in the top-rated universities). 4. There were two types of officers: the nominal executive and the real executive. Different procedures were followed for appointment and at the same time different factors influenced the appointment of officers. In addition, there were other officers in the universities for running the administration. The functions of the offficers were according to the aspects of administration of the university. The universities were rated by university teachers on the basis of certain factors; similarly the role of officers in financial matters was rated on the basis of other factors. 5. There were different ways of exercising legislative and executive powers. 6. There were as many as 13 categories of teaching staff. 7. The admission procedures were different in different universities. 8. The relationship of unversities with government organizations was normal.

1300. SINGHAL, R.P., et al., *A Study on Optimum Teacher-Pupil Ratio in Schools,* NIEPA, 1986

The main objective of the study was to find out the empirical situation in the country with regard to norms of teacher-pupil ratios as prescribed by the state governments and norms actually obtaining for primary, middle and secondary stages in school education.

The sources of data were the school records and annual reports of the directorates of school education.

The major findings were: 1. There was wide varia-

tion (1:20 to 1:55) among the states and union territories in terms of norms of teacher-pupil ratios prescribed by the different states. 2. There was a wide gap between the norms prescribed and the actual position. 3. There were variations in school size, classe size and teacher's work load. 4. A large percentage of teachers did not even teach the minimum prescribed periods per week. 5. More than half the schools worked for less than 220 days in a year. 6. More than half of primary teachers did not take interest in the UEE programme. 7. Nine out of ten schools meant for tribal children did not even conduct an annual census of children of school-going age. 8. A large percentage of schools did not fullly utilize various incentives provided for SC/ST, girls and backward communities. 9. Supervision and guidance of teachers, student services and extension work were very limited. 10. In class V about 38 per cent of schools had more than 50 students per class. 11. The actual teacher-pupil ratios for the sample schools covered by the study throughout the country for different stages were as under: primary stage-1:37 (Rural), 1:35 (Urban), 1:36 (overall); middle stage—1:29(rural), 1:28 (urban), 1:28.5 (overall); high school stage—1:26 (rural), 1:34 urban), 1:24 (overall).

***1301.** SINGHAL, S., *Academic Leadership and Student Unrest: A Pilot Study,* Dept. of Education, JNU, 1977 (ICSSR financed)

The main objective of the study was to evolve an explanation of student unrest taking into account of student characteristics, and institutional and social characteristics on the basis of the empirical evidence gathered from the colleges and departments of the University of Delhi.

The sample for the study included 123 academic leaders (student leaders and teacher leaders), a group of 72 teachers of the selected colleges and university departments drawn at random, a group of 275 students of the selected colleges and university departments barring first-year students, drawn at random. The tools used for collecting data were: (i) newspaper records and office records available in the offices of the Proctor, Dean of Student Welfare, Teachers' Association and Students Union, (ii) a Teacher-Student Study Questionnaire, (iii) an Interpersonal Communication Form, (iv) the Allport-Lindzey Vernon Value Scale, (v) the Sentence Completion Test, (vi) interviews and (vii) anecdotes. Computation of percentages, correlational analysis, factor analysis, regression analysis of the linear form, Cobb-Douglas form and single log forms, cluster analysis, and multiple discriminant function analysis were done to analyse the data.

The major findings were: 1. The attitudes of the authorities had a significant bearing on student unrest. 2. Fifty-six per cent of teachers did not spend adequate time on preparation for teaching. The relationship between their attitudes and student unrest was significant at the .05 level. 3. A large percentage of students activists had fathers who were businessmen and they accepted political affiliations more than the students in general. 4. The academic interests of students and student activists differed significantly. 5. The students' attitudes, motives and values affected student unrest positively ($r = .01$ level). 6. The academic leadership capitalized on the bureaucratic attitude of the authorities: the hierarchical structure of organizations, unemployment and its links with political parties had a significant bearing on student unrest (P .01). 7. The academic programmes failed to gratify students' psychological needs at three levels, cognitive, conative and affective and helped in fomenting student unrest (P .01). 8. A large percentage of students (56.9 per cent) listed economic insecurity as one of the important sources of student frustrations and the relationship was significant at 1 per cent level. 9. A content analysis of 37 anecdotes indicated lack of group cohesiveness on various issues and authority as the target of attack. 10. A majority of teachers as well as students observed on the absence of codes of conduct as the root cause of campus disruptions.

1302. SINHA, D.P., *Study of Improvement of Management in University Administration—University of Poona,* ASCI, 1979 (ICSSR financed)

The objectives of the study were (i) to examine the present organization of the university administration and evolve a systematic and harmonious arrangement of work to enable the university administration to meet its desired objectives, and (ii) to examine the existing system and procedures for important transactions in the university administration from the point of view of work simplification and timely disposal of work.

The investigator made an in-depth study with regard to identifying the routines, assessment of the system and procedures, assessment of the volume of

work, interface linkage with other sections, etc. of the different sections in the university administration. Discussions were held with various officers and supervisory staff and the details regarding their duties and responsibilities were compiled and analysed from the point of view of better utilization of their time, possibility of delegation of routine work and suggesting an appropriate organization structure. Discussions were also held with the heads of teaching departments and principals of affiliated colleges to identify areas where the university administration interfered with their institutions, staff, public and students with regard to academic evaluation. Relevant information was obtained from teachers, principals of colleges and students, with the help of structured questionnaires followed by detailed discussion.

The findings of the study were: 1. The University of Poona derived its corporate authority from the Poona University Act, 1974, of the Maharashtra legislature. 2. The university had listed various authorities in the university, their composition, together with their powers and duties. 3. The university received every year a large amount of grant from the UGC for various development programmes. 4. Because of the day-to-day increase in size and operation of teaching departments, their demand for administrative support had increased. 5. There was close linkage between the academic community and the university administration with regard to a large number of matters like maintenance of leave account, personal files, preparation of salary bills, etc. 6. The administrative work relating to grant of affiliation to colleges and institutions, making arrangement for conduct of examinations, collection of examination fees, etc. were some of the important areas where the affiliated colleges and institutions were connected with university administration. 7. The university administration was directly concerned with a large number of matters pertaining to students such as payment of scholarships, maintenance of student services like library, reading room, community centre and sports, conduct of examinations, issuing of various certificates, etc. 8. The expectations of society from the university were manifold, like high academic standards and wide choice of courses. 9. There was unnecessary paper work, delay of decisions, and a feeling of overwork in staff, and the vice-chancellor being overloaded with files. 10. There was no specific delegation of authority to different lower levels. 11. The work of scrutiny of examination application forms was done at college-principal level and the same was repeated at university level. 12. The work related to receiving of examination application forms had become voluminous because of different activities like registering, sorting, etc. 13. If a paper-setter chosen showed unwillingness to accept the work, the matter again went through the procedural details up to the level of vice-chancellor for appointing a new person from the list provided by the board of studies. 14. The examination centres were fixed by seeking permission of the principal on a prescribed pro-forma every year. 15. The internal assessment marks were sent separately by the colleges and the format used was not uniform. 16. The marks were recorded first in ledger for declaration of results. 17. Degrees were conferred twice a year. 18. The procedure of clearing the claims of bills of paper setters was a lengthy one which passed through many hands. 19. The procedure of preparation of bills of the employees was also a lengthy one, though not many changes took place in the bills. 20. The attendance register of non-teaching staff working in administration was maintained centrally. 21. The terms of references of a large number of committees had not been clearly specified at the time of constituting the committees. 22. The officers of the administration were not taking the terminal responsibility for disposing of cases concerning routine matters. 23. The current policy with regard to fresh recruitment and promotion from within had not been formulated, together with requisite educational qualifications, the nature of years of experience, etc. 24. There was no effort on the part of university to motivate the employee to work for the desired goal and to create a feeling of participation amongst them.

1303. SINHA, D.P., *Study of Improvement of Management in University Administration of Lucknow University,* ASCI, 1980 (ICSSR financed)

The objectives of the study were (i) to examine the present organization of university administration and evolve a systematic and harmonious arrangement of work and workers and suggest an organization pattern best suited to the fulfilment of the desired objectives of university administration, (ii) to examine the existing system and procedure for important transactions in university administration, and (iii) to identify the training requirements for the employees and officers working in university administration.

An in-depth study was made by consulting different

officers of the university with regard to identifying the routines, by analysis of the present system and procedure, assessment of volume of work, interface linkage with other sections etc. The discussion also covered duties and responsibilities of the administrative and supervisory staff. In this connection, an examination of various areas of operation was undertaken. Discussion was also held with heads of teaching departments and principals of affiliated colleges to identify areas where university administration had an interface with their institution, staff, public and students.

The findings of the study were: 1. The vice-chancellor, the chief executive of the university, had a large number of officers who directly reported to him. 2. The registrar was faced with problems of decision-making not only of an administrative but also of an academic matter. 3. The role of the pro-vice chancellor, though specified as being a link between vice-chancellor and teaching departments/students for all academic matters was not actually acting as such; rather he was assigned to one of the offices in the examination section. 4. Nearly Rs 200 lakh were sanctioned by the UGC to Lucknow University in the Fifth Five Year Plan for development. However, the actual implementation of this plan got considerably delayed and the university lost the benefit of the grant. 5. There were many complaints against the works department, such as inordinate delay in execution of construction work, use of sub-standard quality construction material, lack of proper maintenance of university property, expenditure far exceeding the budget allocations, etc. 6. There was no unity of command in the central accounts office as employees below the rank of officers occupying a single position were subject to definite orders from more than one source. 7. The distribution of examination work among the different units in administration was not based on the principle of functional grouping. While a truncated part of the pre-examination work was directly under the registrar, who was supported by the assistant registrar for this work, the remaining examination work was under the deputy registrar (exam.). 8. There was no systematic grouping of activities with respect to security, establishment matters, academic matters, legal matters, UGC projects, compilation of statistics and supply of information. 9. There was no public relations and information branch. 10. A high degree of interdependence existed between various sections of the university administration in performing a majority of the tasks assigned 11. There was a lack of proper mechanism which led to considerable dysfunctioning in certain important areas such as finance and accounts, development and examination of the university administration. 12. The proper functioning of the university administration was affected considerably due to student indiscipline in the university. 13. The salary bills were prepared on separate sheets and then the same details were also recorded in a register which was most time-consuming. 14. The salary cheques prepared after passing of the bills and other formalities were not handed over to the concerned party unless the party personally collected the same from central accounts office. 15. The bills for payment were received by the central accounts office and then entered in various registers which delayed in reaching the bill to the dealing hand within specified time. 16. The details of PF, CDS, group insurance, account of leaves, loss of pay, etc. were not sent to the central office by the concerned department and there was no specific time limit set for receiving the salary bills. 17. There was no machinery in the university which could do the compliance of the audit objection and ensure that the irregularities were not repeated. 18. The examination of various classes was recorded on a very large sheet which had several columns. This was unmanagable and resulted in wastage of paper and space for storage. 19. The answer books from various centres were first received by the secrecy cell and then dispatched to the concerned examiners, which was a lengthy process and delayed in declaration of results. 20. The appointement of examiners for various examinations was a lengthy process which passed through the registrar, his assistants, head of the teaching departments and the board of studies. This involved considerable waste of time and human labour. 21. Promotion to all higher posts of non-teaching staff was made only by seniority. 22. Leave for teachers was sanctioned by the registrar, which was forwarded by the dean of the faculty. 23. Due to lack of knowledge or experience of formal training in the new areas of activities entrusted to them, the officers were not able to function effectively. There was need for special training for specified branches in administration to supply the workers with the know-how necessary successful performance of their assigned task.

***1304.** Sr STELLA ANNE LOBO, *A Study of Values Manifested in Principals with reference to Institutional Efficiency*, Ph.D. Edu., MSU, 1983

The major objectives of the inquiry were (i) to study

principals' competency and value system, (ii) to investigate principals' concept of values and pupils' concepts of principals' values, (iii) to make an in-depth study of the values chosen in relation to institutional efficiency and effectiveness and (iv) to make an in-depth study and develop schools' profiles in terms of institutional effectiveness.

The investigation involved a pre-pilot study of three secondary English-medium schools followed by a pilot study of five schools in Baroda and Gandhinagar. The actual data collection was done from 25 schools. Twelve English-medium schools were chosen from Poona city and 13 from Bombay. The data from the schools were collected personally by the investigator using a battery in nine tools. Two questionnaires were used to measure values. The questionnaire on objectives was adopted from the Edward Gross and Paul V. G. study on university goals and academic power (1964). A fourth questionnaire was devised to study the administrative behaviour of principals. In addition to these, an Organizational Climate Descriptive Questionnaire, a Junior Index of Motivation, a Pupil Opinionnaire, a Principal Interview Schedule and an Observational Schedule were used for obtaining relevant information. The obtained data were analysed through content analysis and descriptive approaches. The statistical techniques used were percentages, mean and standard deviation.

The major findings were: 1. The values which were found most relevant were faith, goodness and competence. 2. Principals whose value system manifested a coreness achieved a relatively higher degree of institutional efficiency. 3. To educate his pupils and provide leadership to his staff, the principal must act more humanely rather than as an administrator. 4. When the principal's values manifested a coreness, the pupils' observations showed a greater congruency with the principal's self-assessment. 5. Values needed a nurturing atmosphere. 6. Effective principals established priorities, classified values and communicated them successfully. 7. The spiritual dimension seemed to be a common factor in all schools that emerged as efficient.

1305. SRIVASTAVA, RANJANA, *A Study of School Effectiveness in relation of Organisational Climate,* D.Phil. Edu., All. U., 1985

The investigation aimed at studying the relationship between school effectiveness and organizational climate. More specifically, the objectives of the present study were (i) to study the relationship between school effectiveness and organizational climate of intermediate colleges, (ii) to study the relationship between school innovativeness and organizational climate of intermediate colleges, and (iii) to study the relationship between school results and organizational climate of intermediate colleges. In the light of the objectives, the hypotheses formulated were: (1) There are significant differences in the perceptions of teachers of high, average and low effective schools on different dimensions of organizational climate. (2) There are significant differences in the perceptions of teachers of high, average and low innovative schools on different dimensions of organizational climate. (3) There are significant differences in the perceptions of teachers of schools with average results, schools with above average results and schools with below average results on different dimensions of organizational climate.

The survey method was followed. All the intermediate colleges of Allahabad district constituted the population of the study. The researcher randomly selected 34 colleges in the sample. The tools used were the School Organisational Climate Description Questionnaire by Motilal Sharma, and the School Innovativeness Survey Questionnaire prepared by the researcher herself.

Analysis of variance and t-test were used to lest the hypotheses. Data were collected from all colleges and 368 lecturers.

The major findings were: 1. Disengagement among teachers was found related negatively to school effectiveness, while feeling of esprit and feeling of intimacy were found related positively to school effectiveness. 2. Feeling of alienation, psycho-physical hindrance and tendency of controls were found to have no relationship with a school's effectiveness. 3. School innovativeness was found not significantly related with disengagement, alienation of teachers and the psycho-physical hindrance dimension of organizational climate. 4. The feeling of esprit and intimacy among teachers was found significantly related to school innovativeness. 5. Except the production emphasis dimension, school results were found to have no relationship with any dimension of organizational climate.

1306. SUNDER, S., *An Investigation into the Problems of Absenteeism in Delhi Schools,* Ph.D. Edu., JMI, 1984

The objectives of the study were (i) to find out the degree of acuteness of absenteeism in schools of Delhi, (ii) to identify the type of absence prevailing in schools, (iii) to determine the relationship, if any, between absenteeism and socio-economic status of the family, (iv) to ascertain the relationship, if any, between absenteeism and perception of problems relating to home, health, school and interpersonal relations, (v) to bring out certain personality variables specifically related to the absenteeism, and (vi) to examine relationship, if any, between absenteeism and intelligence. The hypotheses formulated for the study were: (1) The phenomenon of late-coming, rather than skulking after the recess, is prevalent more among the schoolboys. (2) The problem of absenteeism is more acute in government-aided schools. (3) Socio-economic status has an inverse relationship with incidence of absenteeism. (4) The absentees perceive more problems relating to home and health. (5) The absentees are disturbed more due to problems relating to home and health. (6) The regulars have a more positive attitude to moral values than the absentees. (7) The absentees exhibit greater inclination to negative personality variables like emotional instability, depressive tendency and paranoid tendency. (8) Intelligence has no bearing on absenteeism. (9) There is significant difference between absentees and regulars in their thematic apperception. (10) There is a substantial difference between absentees and regulars in their reactions to frustration. (11) Absenteeism is conversely related to weak ego, less integrative capacity and emotional instability.

The tools used in the study were (i) Socio-economic Status Rating Scale by S.N. Rao, (ii) Problem Check-List developed at the Bureau of Psychology, Allahabad, (iii) Personality Trait Inventory developed by the NCERT, (iv) Raven's Standard Progressive Matrices to measure intelligence, (v) Thematic Apperception Test, (vi) Rosenzweigs Picture Frustration Test, and (vii) Bender's Gestalt Test. Twelve government and 12 government-aided schools constituted the sample. The descriptive method was adopted and a survey and depth study was also done. For data analysis one-way analysis of variance and two-way analysis of variance were used. Factor analysis was also employed.

The principal findings of the study were: 1. The initial survey of the study showed that regular attendance in schools was around 34 per cent which was not at all satisfactory, 15 per cent absentees were detained due to shortage of attendance. The number of struck off cases (36 per cent), if added, made the situation grim. Absenteeism prevailed in different forms. Absenteeism in the first half was found to be 5.7 per cent, a tendency to skulk away (absence in second half) was 5.5 per cent and habitual absenteeism (cutting the whole school day) was 6 per cent. 2. Absenteeism was more in government (18 per cent) than in aided privately managed schools (13 per cent). The deterrents applied by the school to curb absenteeism, striking off the names from the rolls of school, imposing absence fines and detaining presistent absentees from appearing in the annual examinations, were found ineffective to a great extent. 3. Absentees were often found to belong to poor families. Domestic life, of which the child is a product, probably had a vital role. Home, health and school were often causes of concern for absentees. Absentees exhibited negative personality traits. They appeared more depressed, suffered more from paranoid tendencies and were emotionally unstable. They were easily susceptible, they lacked enthusiasm in work, they preferred their own selected group and disregarded social ethics. Absentees seemed to be intellectually backward and hence lacked the required academic competence. Absentees, as a group, were unlike in attitude and personality pattern to regulars; they were contrary to them. Most of the absentees had distorted perceptions, apprehended the social milieu as unbearable, indicated lack of confidence and maturity to cope with odds. Absenteeism was more often than not a face-saving device, an escape mechanism.

1307. SWATANTRA DEVI, T.K., *Role Perceptions of Teachers and Principals in relation to Organisational Climate in the Secondary Schools in Madras City,* Ph.D. Edu., MSU, 1985

The major objectives of the study were (i) to measure, identify and classify the organizational climate of the schools as perceived by the teachers and principals in the secondary schools in Madras and to study the differences between them, (ii) to measure, identify and classify the leadership behaviour patterns of the principals as perceived by the teachers and principals and to study the perceptual differences between them, and (iii) to measure, identify and classify the task and person-oriented leadership styles as perceived by the teachers and principals and to study the perceptual differences between them.

The study involved a survey approach. A sample of

100 secondary schools in Madras City was selected, ensuring representation of boys', girls' and coeducational schools, as well as schools of various types of management. The survey covered 100 principals and 900 teachers. The tools utilized for the survey were, (1) Leadership Behaviour Description Questionnaire by Halpin and Winer, (2) Organizational Climate Description Questionnaire by Halpin and Croft, (3) Task and Person Oriented Leadership Styles Questionnaire adapted from McGregor, and (4) Personal Data Sheet for teachers and principals developed by the investigator. Certain descriptive statistics and t-test as well as certain qualitative approaches were used for analysing the data.

The major findings were: 1. Teachers generally perceived the organizational climate of their schools to be closed whereas the principals perceived it to be open. 2. Both principals and teachers perceived the leadership behaviour of the principals to be mostly in the HH pattern. 3. Teachers perceived their principals as extremely task oriented whereas the principals perceived themselves to be extremely person oriented. 4. Perceptual differences between teachers and principals was more in autonomous climate and less in controlled climate with respect to task-oriented leadership style, whereas it was more in closed climate and less in autonomous climate with respect to person-oriented leadership style. 5. The highest perceptual difference with respect to task-oriented leadership style was found in the LL pattern and the lowest in the HL pattern, whereas with respect to person-oriented leadership style, the highest perceptual difference was found in the HL pattern and the lowest in the LL pattern. 6. Teachers perceived in the LL pattern as more task oriented and the HL pattern as less person-oriented, while principals perceived the LL pattern as less task-oriented and the HL pattern more person-oriented.

***1308.** TTTI, MADRAS, *Optimising Effectiveness and Excellence in Polytechnics—A Case Study*, TTTI, Madras (Faculty Team), 1986

A case study of certain selected polytechnics in the Southern Region of India was undertaken. The objectives were (i) to develop strategies on the basis of the experiences of the polytechnics coupled with related theory and practices, (ii) to make use of the data base and the outcome for reorganizing the programmes and activities of the TTTI, and (iii) to utilize the outcome for formulating appropriate schemes and mechanisms for channelizing the support and inputs forthcoming from central and state Governments with particular reference to the New Education Policy, 1986.

Data collection was done using a questionnaire developed on the basis of identified attributes and criteria.

The major findings were: 1. From an analysis of the case studies, the following key effectiveness areas were identified: (a) curriculum implementation; (b) resource utilization; (c) staff development and deployment; (d) student personnel administration; and (e) institutional management. 2. The study highlighted the devices and strategies adopted by the polytechnics for progressively attaining perfection and excellence in their performance. They were: (a) improving the curriculum implementation process effectively; (b) improving the development, deployment, motivation and commitment of the staff; (c) improving the efficacy of institutional management. 3. The study recommended the establishment of certain mechanisms in polytechnics such as units for planning, scheduling and monitoring the identified activities with specific output and target orientation.

1309. TALI, R., *A Study of the Problems Faced by High School Teachers and Their Attitude towards Teaching Profession in Nagaland*, Ph.D. Edu., NEHU, 1984

The objectives of the study were (i) to study the background characteristics of high school teachers in Nagaland, (ii) to identify problems faced by teachers pertaining to various aspects of the teaching profession, (iii) to find out teachers' attitude towards the teaching profession, and (iv) to make suggestions in the light of the findings.

A questionnaire, an attitude scale (Likert type) and a checklist were constructed and used. In all, 366 teachers teaching in 57 high schools (classes VII-X) in Nagaland responded to the questionnaire. The attitude study included 306 teachers representing 33 high schools selected by stratified sampling. Mean differences of attitude scores of different teacher groups were tested for significance by using t-test. Differences in the frequency of problems identified by different teacher-attitude groups were tested by employing the chi-square test.

The major findings were: 1. Teachers worked under

heavy pressure of problems pertaining to various aspects of the teaching profession. The problems faced, particularly in the areas of academic work, job conditions, financial status and within and outside school interaction, appeared to be common, which appeared to have adversely affected the quality of teaching and efficiency of teachers. Problems of a political nature appeared to have influenced their attitude towards the teaching profession. 2. Measures like stricter appointment of teachers and training, better systems of evaluation, better service conditions, provision of facilities, curriculum improvement, better administration and supervision, improvement of primary education, enrolment control and institutional improvement were suggested by teachers for developing high school education. 3. Knowledge of psychology, teaching the subject of interest, better mastery of the subject and proper assessment of work, were perceived as effective measures for improving teachers' performance. 4. The highest percentage of teachers perceived 'providing better facilities for life and work', 'improving the service conditions' and 'raising the academic qualification' as effective measures for improving their status. 5. A High percentage of teachers perceived 'better service conditions', 'better academic programmes and facilities', 'adequate housing and other facilites', 'stricter appointment of teachers and training' and 'lighter workload' as professional needs. 6. Low pay-scale, absence of professional status, lack of recognition by society and appointment of unqualified teachers were some important reasons for low status of teachers. 7. Schoolteaching was perceived as having high social value but low status. 8. Teachers' attitude towards the teaching profession was slightly favourable. 9. There was no significant difference between different attitude groups of teachers in their identification of problems except in the area 'political'

The significant educational implication was that unless some practical and relevant measures were taken on the basis of the findings of the study, the poor quality performance of teachers resulting in poor academic performance of the pupils in Nagaland would continue.

1310. VARGHESE, T, *A Critical Study of Personnel Development Programmes,* Ph.D. Edu., MSU, 1983

The objectives of the study were (i) to assess the quality and value of personnel development programmes in terms of the attainment of their objectives, (ii) to determine the job relatedness and usefulness of the programmes in terms of bettering the participants' performance process, (iii) to detect the factors affecting the success/failure of the programme, and (iv) to assess the overall benefits of the programme to the participants and to the organization.

The sample consisted of 17 personnel development programmes classified under three groups. They were the managerial programmes of Alembic Chemicals Ltd. and the GIDC, the renewal courses of the missionaries and the orientation courses of the Centre of Advanced Study in Education, Baroda. The evaluation model included input evaluation, process evaluation and output evaluation. The tools included a pretest expectation questionnaire, a reaction questionnaire, rating scales, a checklist, interview schedules, and an observation schedule. The tools were prepared by the investigator, Data collection work was done through observation of programmes, interviewing the participants of programmes, administering the rating scales and questionnaires to them, etc. Simple means and percentages were found out. Also, the data were analysed qualitatively.

The major findings of the study were: 1. The personnel programmes of the GIDC and Alembic Chemicals were rated high with regard to resource persons. 2. They were rated very low with regard to physical facilities and organizers. 3. Supply of notes were appreciated by the participants of the GIDC and Alembic programmes. 4. The missionary programmes were rated as highly satisfactory with regard to organizers, resource persons, participants, methods and techniques and communication; they were rated as excellent with regard to physical facilities, satisfactory with regard to statement of objectives and evaluation; and poorest with regard to planning and preparation, and content of training programmes. 5. The CASE programmes were rated as satisfactory with regard to organizers, resource persons, participants and methods and techniques. 6. The communication and objectives of one of three CASE programmes were rated highly satisfactory, because it involved interactions between presenters and trainees and among trainees themselves. 7. The contents of CASE programmes were less than satisfactory in the cases of two out of three programmes. 8. The physical facilities were rated as slightly satisfactory.

***1311.** VEERARAGHWAN, V., *A Comparative Study of Organisational Climate, Leadership Adaptability and Teacher Effectiveness in High, Average and Low Performance Schools*, Dept. of Education, JNU, 1986 (ICSSR financed)

The objectives of the study were (i) to find out whether there was any variation in the organizational climate that existed in the high, average and low performance schools, (ii) whether teacher effectiveness varied amongst the high, average and low performance schools, (iii) whether there were typical factors underlying teacher effectiveness, (iv) whether job satisfaction amongst teachers and leadership adaptability in schools varied in terms of high, average and low performance schools, (v) whether student's adjustment to home, health, emotional, social and educational areas as well as their achievement motivation varied in terms of high, average and low performance schools, and (vi) whether all the above-mentioned aspects varied also in term of types of schools.

For the purpose of the study a total of 65 schools were selected from the Union Territory of Delhi using the stratified random sampling method. From these schools 498 teachers who were teaching classes X and XII constituted the teacher sample. The student sample consisted of 3618 students drawn from classes XI & XII respectively from the schools. The following tests were used to collect data: (i) Halpin and Croft's (1966) Organizational Climate Description Questionnaire, (ii) Arora's (1973) Teacher Characteristics Description Form to ascertain teacher effectiveness, (iii) Indiresan's (1973) Job Satisfaction Scale, (iv) Halpin & Winer's (1953) Leadership Behaviour Description Questionnaire to ascertain leadership adaptability of the principals, (v) Sinha and Singh's (1964) Adjustment Inventory, and (vi) Rao's (1974) Achievement Motivation Scale. To identify the high, average and low performance schools, the results of the CBSE examinations of each school over a period of three years were scrutinized.

The major findings of the study were: 1. The organizational climate dimensions (disengagement, aloofness, esprit, intimacy, psychological hindrance, consideration, humanized thrust and production emphasis) varied significantly amongst high, average and low performance schools with high performance schools showing lower disengagement, alienation, psychological hindrance and higher on esprit, intimacy and humanized thrust as comapred to the average and low performance schools. 2. The high performance schools as compared to average and low performance schools showed relatively more open climate, with groups being open and principal control being less as compared to low performance schools. 3. There were significantly more teachers in the high performance schools having more years of experience than the teachers of average or low performance schools. 4. Both high and average performance schools had relatively higher percentage of highly trained teachers as compared to low performance schools. 5. Irrespective of the schools being high, average or low in performance, teacher effectiveness (TE) did not differ significantly amongst the schools. 6. Four factors, viz. leadership style, professional qualities, personal dispositions and personal attributes, emerged as underlying teacher effectiveness and when these factors were considered in terms of high, average and low performance schools, the results showed a high positive correlation amongst leadership style, professional qualities and personal attributes in high and average performance schools and low but positive correlation in low performance schools. 7. There was no significant difference in leadership adaptability between high and average performance schools though leadership adaptability was significantly higher in high performance schools than in low performance schools. 8. There was no significant difference in the job satisfaction of teachers belonging to high, average and low performance schools. 9. The higher the production emphasis and humanized thrust in an organization, the higher was the job satisfaction. 10. By and large, the Delhi Administration Schools appeared to have higher disengagement, aloofness and psychological hindrance with relatively low production emphasis as compared to the other five types of schools. 11. The highest teacher effectiveness was obtained in public schools, followed by miscellaneous management schools. The other four types of schools were almost similar on TE. 12. There appeared a significant variation amongst schools in regard to correlations between the dimensions of TE and the dimensions of organizational climate. 13. When adjustments to all areas were considered as a composite score of overall adjustment, the results showed that average performance schools' students had significantly better overall adjustment as compared to students of high and low performance schools. 14. The average performance of school students had significantly higher achievement motivation as compared to low or high performance school students. 15. The better the orga-

nizational climate the higher was the adjustment of students to all areas of life, viz., home, health, social, emotional and educational areas.

***1312.** VERMA, J.S., *A Comparative Study of Role-Conflict of Male and Female Educational Administrators in relation to their Personality Traits and Adjustment*, Ph.D. Edu., Mee. U., 1985

The major objectives of the study were (i) to compare the role conflict of male and female educational administrators, (ii) to find out the relationship between personality traits and role conflict of educational administrators, (iii) to find out the relationship between values and role conflict of educational administrators, (iv) to examine the relationship between adjustment and role conflict of educational administrators, and (v) to find out the best combination of personality, values and adjustment which contributed to the prediction of role conflict.

The study was conducted in two phases. In the first phase, the Role Conflict Scale for principals was constructed, and in the second phase the normative survey method was used for the investigation. The sample of the study consisted of 374 male and 83 female educational administrators selected from the five districts of Meerut division. The tools used to collect data were the Role Conflict Scale for Principals, a Hindi adaptation of Cattell's Sixteen Personality Factor Scale (Kapoor), a Personal Values Questionnaire (Sherry and Verma) and the Principals' Adjustment Scale (Agrawal). The data were analysed using Pearson's coefficient of correlation, partial coefficients of correlation, multiple regression analysis and t-test.

The investigation yielded the following results: 1. Traits, viz., less intelligence-more intelligence, affected by feelings-emotionally stable, sober, happy-go-lucky, tough minded-tender-minded, placid-apprehensive, group dependent-self sufficient, undisciplined-controlled and relaxed-tense were significantly correlated with role conflict in male educational administrators. 2. The traits, less intelligence-more intelligence, tough minded-tender minded, placid-apprehensive, conservative-experimenting, group dependent-self sufficient and relaxed-tense were significantly correlated at .01 level with role conflict in female educational administrators. 3. Each of the 16 personality traits contributed significantly to the prediction of role conflict. 4. Economic value, hedonistic value, power value, and health value were significantly related to role conflict in case of male educational administrators, whereas social value, economic value, hedonistic value and power value were significantly related to role conflict in female educational administrators. 5. Adjustment was found negatively related to role conflict and it could predict it successfully. 6. After partialling out the effect of values, the relationship between personality traits and role conflict was found increased or decreased but the increase or reduction were negligible in most of the cases.

1313. VERMA, N.L., *Three Hour Schools in Rajasthan: An Evaluation*, SIE, Rajasthan, 1968

The objectives of the study were to apprise the Department of Education with the status of the children of Three Hour Schools in relation to their scholastic achievement, learning by children, their family occupation, enrolment and attendance. The hypotheses were: (1) The scholastic achievement of the students of Three Hour Schools is at par with that of the traditional schools. (2) There is less wastage and stagnation in Three Hour Schools as compared to traditional schools. (3) The daily attendance of the children of Three Hour Schools is better than that of traditional schools.

Five Three Hour Schools and two traditional schools each from four Panchayat Samitis, viz., Shahpura (Bhilwara), Rajasamand, Railmagra (Udaipur) and Shahpura town (Bhilwara) were selected for the study. Questions for each class were set. There were oral questions, too. Questionnaires to record views of headmasters of both types of schools were prepared. For getting information about syllabuses, attendance, enrolment, wastage and stagnation, information blanks were used.

The main findings were: 1. The scholastic achievement of the students of Three Hour Schools of Shahpura town, Railmagra, and Rajasamand Panchayat Samitis was not in any way lower than that of the students of the traditional schools. 2. The children of Three Hour Schools did learn something about their family occupation by participation in it at home. 3. The students of Three Hour Schools studied Hindi, Mathematics, General Science and Social Studies in the same manner as was done by those of the traditional schools. The achievement of the students of both the

categories of schools was at par. 4. The daily attendance of the students of Three Hour Schools, on the whole, was not better in comparison to the students of the traditional schools of that area.

The study team emphatically stated that the scheme of Three Hour Schools was quite promising, and was worth trying out further on a wider scale in different parts of the state. The process of evaluation should be replicated at regular intervals. For smooth running of these schools there should be one teacher per class.

1314. VIRMANI, K.G., *Leadership Styles and Cognitive Ability Antecedents as Performance Correlates of Educational Leaders—Focus on Heads of Schools*, Ph.D. Soc. Sc., IIT, Del., 1984

The objectives of the study were (i) to know whether leader traits were the 'cause' of leader styles and whether these in turn were the 'cause' of leader performance both of the quantitative and qualitative kind, and (ii) to explore the possibility of the existence of a new cognitive trait related with the leadership processes sensitivity, which made leaders effective. The basic hypotheses formulated were: (1) Basic style/style flexibility/style adaptability/two style profiles (based on the Tridimensional Leadership Effectiveness Model of Hersey and Blanchard) of heads of schools will be related to the pass percentage/first divisioners percentage of students of their schools passing out of the Board examination. (2) Intelligence/Creativity/Leadership processes sensitivity ability (in Hindi—*vivek)* /humour/supervisory ability of heads of schools will be related to their basic style/style flexibility/style adaptability/two style profiles. (3) Intelligence/creativity/*vivek*/humour/supervisory ability of heads of schools will be related to pass percentage/first divisioners percentage of their students passing out of the Board examination.

The sample consisted of 170 respondents which included 85 heads of schools (principals of secondary/senior secondary government schools for boys and girls) taken as educational leaders from the Union Territory of Delhi and 85 heads of schools (headmasters of more or less urban high schools for boys and girls) from the Union Territory of Goa, Daman and Diu. The tools used were: (i) Hersey and Blanchard's LEAD (self) Questionnaire for measuring managerial leaders' basic style, style flexibility, style adaptability and two style profiles. (ii) Ghiselli's Self Description Inventory for measuring managerial leaders' intelligence, need for self actualization as a measure of creativity and supervisory ability, (iii) a specially designed V-Questionnaire for measuring Leadership Processes Sensitivity Ability (*vivek*), (iv) George Washington University Test of Social Intelligence containing the sub-test on sense of humour, (v) Board examinations' results as measures of performance. Chi-square test of independence and suitable tests of statistical significance were used to derive conclusions.

The major findings were: 1. The basic style of heads of schools was not related to pass percentage/first divisioners percentage of students of their schools passing out of the Board examination. 2. Style flexibility of heads of schools was related to pass percentage of students of their schools passing out of the Board examination. 3. Style flexibility of heads of schools was not related to first divisioners percentage of students of their schools passing out of the Board examination. 4. Style adaptability along with style flexibility of heads of schools were related to pass percentage of students of their schools. 5. Style adaptability of heads of schools was not related to pass percentage/first divisioners percentage of students of their schools passing out of the Board examination. 6. Two style profiles along with style flexibility of heads of schools was related to pass percentage of students of their schools passing out of the Board examination. 7. Two style profiles of heads of schools were not related to pass percentage/first divisioners percentage of students of their schools passing out of the Board examination. 8. Intelligence of heads of schools was related to their style flexibility. 9. Creativity of heads of schools was related to their style flexibility. 10. Intelligence, creativity *vivek*, humour and supervisory ability of heads of schools were not related to their basic style. 11. *Vivek* of heads of scchools was related to their styles flexibility. 12 Humour and supervisory ability of heads of schools were not related to their style flexibility. 13. Humour of heads of schools was related to their style adaptability. 14. Intelligence, creativity, *vivek* and supervisory ability of heads of schools were not related to their style adaptability. 15. Intelligence, creativity, *vivek*, humour and supervisory ability of heads of schools were not related to their two style profiles. 16. Supervisory ability of heads of schools was directly related to pass percentage of students of their schools passing out of the Board examination. 17. Intelligence, creativity, *Vivek* and humour of heads of schools were not directly related to the pass percentage

of students of their schools passing out of the Board examination. 18. Intelligence, creativity, *vivek*, humour and supervisory ability of heads of schools were not directly related to first divisioners percentage of students of their school passing out of the Board examination.

1315. YADAV, U.P., *A Socio-Psychological Study of Library Users*, Ph.D. Lib. Sc., Bhagalpur U., 1979

The major objective of the study was to find out the various socio-psychological aspects which may have relevance with the library users with particular reference to attitudes of teachers, research scholars, students and other categories of library users towards the book collection, library building and furniture, library management and library hours.

A survey of social and psychological factors associated with those who were frequent visitors particularly to Bhagalpur University Library was conducted. Questionnaires for students, teachers/research scholars and others were prepared through tryouts and item-analysis, covering four main areas (book collection, library management, library building and furniture, and library hours), and used. Social aspects were studied through a Personal Data Sheet. In all, 800 library users (400 students, 200 teachers/research scholars and 200 others) were randomly selected. Further categories were made on the basis of sex, age, income and residential facilities. Percentages, mean, SD, correlation, t-test, etc. were employed.

Some of the major conclusions were: 1. Students differed significantly in their attitude towards book collection from teachers, research scholars and others. Students' attitudes towards library building and furniture was favourable. 2. Mean hours spent in library by females were higher than by males. 3. Sex difference among students was found with regard to attitudes towards library management and library building. 4. Students with agricultural and salaried parental backgrounds differed significantly in their attitudes towards book collection, library management, library building and furniture, and library hours. 5. Residential conditions influenced attitudes of students. Hostelers and residents of lodges near the university campus had more favourable attitudes towards the book collection. 6. There was no facultywise difference in attitudes of teachers and research scholars. 7. Age of students, teachers/research scholars and others influenced their attitudes concerning library management. 8. Students' attitudes differed according to parental occupational background. 9. Students of different income groups showed no significant difference in there attitudes towards book collection except students belonging to Rs. 5000-15000 annual income group.

ALSO SEE

1034. ABDUL SAMAD, *Study of Organisational Climate of Government High Schools of Chandigarh and its Effects on Job Satisfaction of Teachers*, Ph.D. Edu., Pan. U., 1986
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1525. AMARSINGH, *Normative Study of Physical Fitness of Panjab University Men Students*, Ph.D. Phy. Edu., Pan. U., 1986
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1038. BALVINDER KAUR, *Job Satisfaction of Home Science Teachers: Its Relationship with Personal, Professional and Organisational Characteristics*, Ph.D. Edu., Pan. U., 1986
1484. BAPAT, N.G., *Management Education in Marathwada—A Study of Regional Imbalance in Vocational Education and Manpower Planning in Marathwada—A Case Study*, Swami Ramanand Teerth Research Institute, Aurangabad, 1985
1485. BAROOAH, T.N., *Development of Polytechnic Education in Assam and Its Impact on Socio-Economic Growth*, Ph.D. Edu., Gau. U., 1986
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94. BILQUIS, FATIMA, *The Role of Private Enterprise in Education with special reference to Mus-*

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101. CHINNAPPAN, G., *Equalization of Educational Opportunities,* Ph.D. Edu., Poona U., 1987

1445. DAS, R.C., *A Study of the Wastage and Stagnation at the Elementary Level of Education in the State of Assam with special reference to the Primary Stage,* SIE, Assam, 1969

1444. DAS, R.C., *A Comparative Study of Educational Wastage in Urban and Rural Areas,* SIE, Assam, 1975

1446. DAS, R.C., *Administration of Elementary Education in relation to the Programme of Universalisation,* SIE, Assam, 1979

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