

Research in Higher Education

A TREND REPORT

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INTRODUCTION

Any attempt to review the development of the system of higher education in India often results in critical comments about the system. To many, higher education in India today has become useless, serves no purpose and has failed to meet the needs and challenges of the present day world. Most commissions and committees appointed to study the problems of higher education in India have come out with drastic comments against the way in which the system of higher education has developed in our country. The growth of the system has brought it to a critical point. It currently suffers from internal and external constraints. Internally, it is fractured along lines of discipline and the radical student subcultures. There is also split between the administration and faculties. Externally, the socio-economic pressures are enormous and these violate its identity and autonomy. Irregular and unmediated as the development may be, it is pushed forward by two clear, self-consistent and antagonistic impulses, each sure of itself but in tension with the other. One is the drive to democratize, to expand, to admit greater numbers; the other is the drive to raise standards, to increase equipment and research in special fields.

The most important characteristic of public policy on Indian education has been one of drift, a drift in response to the wind from whichever direction it might be blowing. The direction of the wind has been largely determined, naturally enough, by the existing stratifications of Indian society. Bending to the pres-

ures of vocal groups and powerful classes has contributed to the perpetuation and, indeed, intensification of the social inequities. The rot in Indian education is thus ultimately related to the structure of Indian society.

In spite of the frustrating situation, there have been planned efforts at improving standards in higher education by the central agencies during the last twenty-five years. These efforts are with respect to three dimensions of higher education, viz., teaching, research and extension. Regarding teaching, the UGC set up panels on various university disciplines in humanities and social sciences in 1974 to advise the UGC on matters relating to the development of teaching and research in these areas. Similar panels were constituted for science subjects. To improve research and accelerate it, the activities of the ICSSR and ICHR were stepped up. Courses at undergraduate and postgraduate level were restructured. The university and college teachers needed pedagogic orientation. The UGC financed a number of summer programmes for orienting fresh teachers of colleges and universities. A number of Academic Staff Colleges were started.

An important development contributing to the strengthening of research in universities was observed when the UGC introduced a scheme in 1963 for developing a limited number of university departments for advanced research and training in selected fields. Subsequently, this scheme was modified and special assistance and research support were provided to a number of departments. These programmes aimed at improving teaching and research in universities. To improve ex-

tension, the UGC introduced extension programmes in universities through establishing departments of Continuing Adult Education and Extension. With these innovations, higher education did see some improvement. Regarding research, it was seen that the departments of social sciences, humanities and natural sciences stepped up their activities. Research increased quantitatively but higher education as such did not receive research support. The increase in research in university department was in various disciplines but not on curriculum, instruction or evaluation in higher education. Perhaps, it may be argued, that this was the responsibility of education departments. However, looking to the programmes of the education departments and their staffing pattern and policy, they were not in a position to take up meaningful research in higher education. As a result, one finds a paucity of good research in higher education and its pedagogy. In the seventies, when a university in a southern state was planning to establish a department of education, it was suggested that the department be named as department of higher education. If this had been done, the department would have taken up research and training in higher education but the proposal was not accepted and, after a humble beginning in research and training in higher education, the department receded to work in the area of school education. At present there is no centre exclusively devoted to the study of problems and issues in higher education. The higher education unit in the NIEPA and the higher education unit in a university in the western region carry out some research activities in higher education but their programme is not comprehensive enough to enable them to function as one of the national centres of research and training in higher education. In the absence of an organized programme to study the subject in a comprehensive way, research in higher education is sporadic, trivial and uninspiring. Economists have studied the economics of higher education or higher education finance. Some of these studies are commendable but they do not provide a holistic picture of research in higher education. It is in this background that studies in higher education are to be seen.

REVIEW OF RESEARCHES

There are in all 222 studies in higher education completed in universities and research institutes, since the beginning of educational research in Indian universities in 1943. Area-wise, these studies are classified in Table 28.1. For the sake of better organization and the

needs of research workers, these studies are classified into six areas, viz., historical aspects, personnel aspects, sociological aspects, economic aspects, curriculum aspects, and management aspects of higher education.

Table 28.1

CATEGORYWISE DISTRIBUTION OF STUDIES IN HIGHER EDUCATION

Sr. No.	Category	Ph.D. Studies	Projects	Total
1.	Historical aspects	16	6	22
2.	Sociological aspects	22	12	34
3.	Economic aspects	18	6	24
4.	Personnel aspects	42	26	68
5.	Curriculum	32	16	48
6.	Management of higher education	17	9	26
Total		147	75	222

The studies included in the first and the second survey of research in education were reviewed in *The Second Survey of Research in Education* (Buch, 1979). In this volume, the studies included in *The Third Survey* and additional studies completed subsequently up to March 1988 are reviewed.

Historical Aspects

Researchers have studied higher education in its historical perspective at the national level, state level, district level and even city level. They have also studied the historical development of selected institutions of higher education. Quite a number of studies are area studies. These were undertaken during the period 1974 to 1987 by Doctor (1974), Kumar (1980), IIE (1980), Gogate (1980), Kulkarni (1985), Inderjit Kour (1985), Benal (1987) and Joseph (1987).

In 1974, Doctor studied the growth of university education in Gujarat during the period 1947 to 1974. The study was done in blocks of four years and it traced the growth of the then existing universities in the matter of enrolment, facultywise number of colleges, strength of faculty members, postgraduate centres, etc. Six years after this study, Kumar inquired into the growth of higher education among scheduled castes. The Indian Institute of Education studied the development and status of arts, science and commerce colleges in Marathwada University and also their projected plan of

development during the decade 1980-90. The IIE, Pune, had selected the Marathwada region of Maharashtra for intensive study. As a part of this study, various aspects of higher education in the region were studied. Kulkarni (1985) studied diploma and degree-level technical education in Marathwada. In 1987, Joseph studied the progress and problems of higher education in Maharashtra State. In the same year, Benal made a critical study of development of higher education in the State of Karnataka during the period 1950-85 with special reference to Karnataka University.

In 1957, three universities, Bombay, Calcutta and Madras, completed their centenary. Their histories were published. In 1958, a volume was published on Allahabad University; in 1969, Bhatnagar wrote the history of M.A.O. College, Aligarh, and in 1982 Yusuf Shah published a case study of Aligarh Muslim University. Prior to this, Banaras Hindu University was studied in the context of historical growth by Somaskandar (1966) and also by Sikha Chattopadhyay Mukherjee (1980). In line with these studies, Nair (1981) developed a statistical portrait of Kerala University. Pande (1986) studied the dimensionality and differences in the college environment of Garhwal University and Deshmukh *et al.* (1985) traced the history and growth of the continuing education programme of SNTD Women's University.

Apart from area studies and histories of institutions, a new trend in research in higher education was evident. Researchers shifted their attention to thematic studies rather than area studies. Engineering education and teacher education are example of two such studies. Balaraman and Krishnan (1982) completed a faculty study of perceived goals and goal orientations in engineering education; Balaraman *et al.* (1982) studied the objectives of basic engineering education and Shukla (1980) compared the environment of professional and non-professional teaching institutions of higher education.

Marker (1975), Pathak (1972), Sinha, U. (1980), Gupta, B.C. (1982), Rai (1982), Sharma, M. (1982) and others studied the teacher education programmes leading to the B.Ed. and M.Ed. These studies were the survey of teacher education in Maharashtra by Marker, in eastern UP by Pathak, impact of teacher education programme on school teacher by Sinha, U., innovative practices in colleges of education by Gupta, B.C., problems of teacher training colleges and progress of teacher education in India by Sharma. The NCERT undertook special surveys of teacher education in the country.

Another trend in research on the history of higher education is seen in three studies by Desai (1973), Patel and Shah (1982), and Pillay, G.S. (1986). These are the studies on the development and growth of educational research in the universities of Gujarat and Tamil Nadu. Desai from Saurashtra University studied the educational research in the universities of Gujarat during the decade 1963-73. After about ten years, Patel and Shah (1982) made a survey of educational researches carried out at postgraduate level in Gujarat universities. Pillay (1986) studied the nature of researches in social sciences and the diffusion of their findings in the region. There are a few more studies which have some bearing on the history of higher education. Since independence, the higher education system in India has been interacting with its counterparts in advanced and developing countries. In the case of advanced countries, Indian higher education has been influenced by the educational models of those countries. On the other hand, the country is attracting a large number of scholars from developing countries who in turn establish bridges of communication between the two systems of higher education. Srineevasan (1978) studied the foreign influence on higher education in India whereas the Thai and Bangladesh scholars made comparative studies between Indian higher education and the higher education in Thailand or Bangladesh (Bunturungsook, 1979; Sahajahan, 1982; Sirirassamee, 1980). Some of these are area studies whereas some are truly comparative studies (Sirirassamee, 1980).

The volume of research in the historical aspects of higher education is not large quantitatively but it does lay down the tradition for future researchers. Even though there is no centralized coordination, one finds that higher education in the states on the western coast (Gujarat, Maharashtra and Karnataka) has been studied. If similar studies are undertaken in other states, we may have a national picture of higher education. These studies in the history of higher education are a welcome beginning. They should further motivate researchers to study the historical growth of curricula in different disciplines, programmes and practices in colleges and universities, etc.

Sociological Aspects of Higher Education

Society and education have a continuous interaction. They influence each other. Higher education results in the socialization and modernization of the society.

Higher Education and Modernization: The impact of higher education on society can be seen in the extent to

which it fulfills its major functions, the functions of socialization, modernization and advancement of knowledge. The socialization and modernization functions of higher education go hand in hand. There are a large number of studies in this area. Most of them were covered in the *Third Survey of Research in Education* but distributed over different chapters. Pant (1981) found that education had reduced the feeling of inferiority and hesitation among the Muria students of Bastar. Saxena (1972), Thakar (1975), Saxena (1976), Mookherjee (1977), Bhushan (1978), Prajapati (1983), and Desai (1984) studied the socialization effect of higher education. The core values pertaining to joint family, caste endogamy and religious beliefs and practices appeared to continue holding their sway on students. At the same time, a number of changes were evident in the students' life. The students of higher education held modern attitudes, were for inter-caste marriages, stood for secular rather than religious society, accepted sex equality, etc. At the same time, some of students were for joint families, continued to be religious, traditional and unscientific. The students of higher education were midway between tradition and modernity. They believed in joint families, religious practices and, at the same time, their attitude to women, to education, to science had undergone a significant change, this change being more pronounced in urban than in rural students and in the upper classes rather than the lower classes (Saxena, 1972; Thakar, 1975; Saxena, 1976; Bhushan, 1979; Agarwal, 1980; Gandhi, 1980; and Reddy, 1980). Sharma, S.L. (1979) studied the modernizing effects of university education. His findings were: (i) The level of higher education was inversely related to student modernity in professional courses, natural sciences and humanities. (ii) it was positively related to level of higher education among students of social sciences, (iii) males were more modern than females, and (iv) high status students were more modern than low status students. Sharma further found that there was limited influence of teachers on student modernity but differences in the quality of institutions seemed related to differences in modernity. Phadke and Shukla (1981) found that higher education had linkages with jobs. Due to interaction with non-tribal students, the thought process had started among tribal students who developed a sense of justice and propriety. College education had influenced the feeling of self-interest of tribal students and they attempted further their prospects by appearing at competitive examinations. Ramanamma and Bambawala (1979) found that university teachers showed conflict-

ing values in group feelings and westernisation; commitment and, to some degree, the level of aspiration entered the academic role structure as significant variables in the context of modernization. Khanna (1980) also studied the academic role structure and modernization in the case of the teachers of Jodhpur University. Two studies have examined the impact of the higher education programme on society (Pillai and Mohan, 1983; Mukhopadhyay and others, (1981). While studying the impact of correspondence education on society, Pillai and Mohan found that the maximum impact was in the category of social well-being. The participants reported that correspondence education led to their occupational betterment by way of better job opportunities, career promotions and occupational change. Quite a few participants felt that correspondence education gave a chance for development to those who could not take formal education in colleges. A great psychological and social impact was noted among inmates of a prison who could not join institutionalized educational programmes.

Higher education facilities and the encouragement for it provided by government have raised the aspirations of students from the rural areas and the urban slum areas to take up courses in higher education. A large number of students rush to institutions of higher education without making sure whether they would benefit from them. After six to twelve months, some of them drop out of the system. The dropping out of the system of higher education is a sociological phenomenon. Researchers have studied the problem of wastage and stagnation in higher education.

Wastage, Stagnation and Dropouts

This problem was studied by Bose and Mukerjee (1971), Ramanujan *et al.* (1979), Phadke and Shukla (1980), Khobragade *et al.* (1981) and Patel and Dewan (1981). Bose and Mukerjee found that wastage and stagnation in collegiate education was high. The main reasons were lack of facilities, dearth of competent teachers and inadequate attention to higher education in national plans and policies. Khan found high dropout rates in polytechnics and engineering colleges being higher in the former. The dropout rate had remained steady over one or two quinquennia. The stagnation rates for diploma courses were higher than those for degree courses. Failure was one of the reasons for students leaving institutions without completing the courses. Ramanujan and others analysed student wast-

age in Jammu and Kashmir at different levels of education. They found that student wastage at the undergraduate level, both in arts and science, was high. In respect of the postgraduate level, the dropout rate was much lower. In the case of teachers training courses, there was no dropout in respect of certificate level education whereas in the case of the degree level it was about 27.4 per cent. Phadke and Shukla (1980) found that the percentage of dropout in case of tribal students was as high as 53.48 per cent—39.23 for the arts and 42.96 for the commerce faculty. Khobragade *et al.* (1981) while studying the problem of dropout in polytechnics found that the dropout rate ranged between 50 and 76 per cent. However, there was a consistent trend of improvement since 1973-74. The dropout rate was highest in the first and second semesters and lowest in the fifth and sixth semesters. Patel and Dewan found that, in engineering colleges, the majority of dropouts were at the beginning of the second or third semester. A majority of students who drop out due to failure were found to have failed in mathematics.

Economic Aspects of Higher Education

There are about 20 studies on financing of higher education. The UGC and ICSSR supported a number of studies regarding financing of university education. These studies are Shah, A.B. and Inamdar, 1980 (Poona University), Gogate, 1979 (Colleges of Maharashtra), Chandrakant *et al.*, 1975 (IITs), George, 1982 (Tamil Nadu), Garg, 1981 (Panjab University), Loganathan, 1981 (Tamil Nadu) all included in the *Third Survey of Research in Education*. In the current volume, the studies reviewed are Aher, 1986 (Maharashtra), Chalam, 1981 (AP), Jena, 1983 (MSU), Madi, 1982 (Karnataka), Parashar, 1980 (Universities in MP), Singh, 1986 (Manipur) and others. Most of these studies are at project level. The question of finances in higher education is discussed at length elsewhere in this volume and therefore is not discussed here.

Personnel

The working of the system of higher education depends upon the personnel who are effecting it and are being affected by it. They are the beneficiaries (students), functionaries (teachers) and decision-makers (vice-chancellors and principals). Subjects have been conducted with respect to all three categories of participants in the system.

Students

Students are the main beneficiaries of higher education. This aspect has attracted the attention of researchers and many are engaged in studying 'the student' from various angles. The assumption is that if 'he' is known fully, higher education can be moulded and modified accordingly and it will be possible to get over the problem of 'falling standards'. Various aspects with respect to students that have been studied are personality, adjustment, motivation, problems and needs, values, perceptions, guidance and placement, achievement and concept formation, leisure-time activities and student activism.

There are about 30 studies that have investigated the personality structure of the students of higher education. Such studies have their relevance to the field as they provide the basic data for fixing the admission norms and goals of higher education. Researchers have studied this area from psychomotor, affective and cognitive domains. The researchers, viz., Bhullar (1976), Chaudhry (1979), Bandhopadhyay (1982), Talwar (1981), Sharma (1984), Grewal (1986) and Amarsingh (1986) studied the physical aspects of the personality of students of higher education belonging to different grade levels. The major stress in all these studies has been on the fact that physical fitness of students varied with respect to socio-economic status and other ecological variables. The other group of researchers investigated the affective domain of personality of college and university students. The variables included in studies of this aspect were self-ideal disparity (Harigopal, 1975), self-disclosure and anxiety (Malik, 1978), frustration (Singh, 1986), life stress (Agrawal, 1985), compassion and compulsion (Agarwal, 1980), creativity (Chauhan, 1978), self-concept (Uchat, 1979) and tension (Khan, 1980). The researchers studied all these variables with respect to different independent variables, viz., socio-economic status, parental occupation, parental education, students' risk-taking behaviour and faculty structure. The findings led to the conclusion that independent variables make a significant contribution to the personality structure of the student of higher education. Another important aspect of affective domain studied is that of values and value preferences among students. The researchers studied values as dependent upon various factors, viz., areas of residence—rural, urban (Gandhi, 1980), types of colleges—professional and non-professional (Jain 1977, Supe *et al.*, 1970; Manav, 1981) and other psycho-social correlates

(Kundu, 1982 and Srivastava, 1981). The values were found to be related to culture.

There are studies that have taken into consideration the attitude of the students as a variable of study. The aspects in relation to which attitude has been studied vary from self improvement (Xavier, 1987), to sex-role (Narinderbal, 1981) and marriage (Thaker, 1975). These studies have taken limited views of this dimension of personality. There is a need to look at it from a broader viewpoint. The function of higher education is not limited to improvement of the individual alone; it must also prepare manpower for development of the nation. The attitude of youth needs to be studied for tackling various national problems.

Other dimensions of student personality studied by the researchers are problems and needs (George, 1968; Krishnan, 1977; Shah *et al.*, 1981; Singh, 1978; Solanki, 1976; Sahajahan, 1982; Soni, 1975; Lal 1979); adjustment (Babel, 1986; Sharma, 1985; Tulpule, 1977; Jaiswal, 1989; Tripathi, 1981); perception about college or university environment (Kumari, 1977; Goyal, 1981; Dwivedi, 1979; Sharma 1980; Rao 1975). One general conclusion that can be drawn from all such studies is that culture contributes to the formation of personality. The same is evident from the personality profiles drawn by the researchers with respect to the social class and social situation to which the student belonged (Aikara, 1980; Sharma, 1982; Rangari, 1981; Chitra, 1969; Dharamvir, 1978; Kaur, 1980).

The cognitive domain of the personality as studied by various researchers includes motivation patterns, concept formation leisure time activities, and study habits. The researchers tried to find out the relationships of these variables with different ecological variables. Shejwal (1980), Ashar (1985) and Dunakhe (1978) studied reading habits of college students. Motivation patterns and motives were studied by Harmeet (1984) and Patel (1982). They tried to associate achievement motivation with different types of behaviour of the students. Badami (1969) and Sharma (1983) tried to investigate leisure-time activities of students belonging to different grade levels in a college. It was concluded that leisure-time activities of college students varied from one grade level to another, depending upon the cognitive maturity of the students. Some researchers made impact studies in the cognitive aspect of personality. Uniyal and Shah (1979), studied the effect of caste upon achievement with respect to students from different faculties. Khobragade (1981) studied the influence of backwardness on admission and performance of students in

polytechnics. Similarly, Anantkrishnan (1980) reviewed the performance of polytechnic students in relation to achievement and intelligence. All these studies endorsed the accepted finding that achievement is related to social and ecological variables. These studies are stereotypes and need lot of improvement with respect to concept and other processes of research. Studies are still needed that can find out how a mental framework is formed at this late adolescent stage because of different impact variables. The answer to such problems will help in guiding the youth that are going to lead the nation tomorrow.

Researchers have been equally concerned with guidance problem of students. They have gone for survey studies. Such studies have their relevance to education insofar as they help to match the societal needs with required human potential. Shah *et al.* (1977, 1978) studied the guidance needs and placement of arts and home science women students. Similarly, the Employment Information and Guidance Bureau (1971) surveyed the employment of chemistry postgraduates. These studies showed that employment depended upon aspirations and the experience which the students gained while at college. In this direction, Sunderarajan (1977) took up a study to investigate career commitment of students of hotel management as a result of college experience. John and Abraham (1981) went a step further and planned an action research programme. They tried to study underachievement among college students and outlined a guidance profile. This is a welcome trend. Such studies will help in earmarking and developing desired competencies so that prevailing manpower can be best utilized. More studies need to be planned in this direction so as to prepare youth for tomorrow's computer world whose problems are foreseen with respect to communication, dissemination of information, etc.

Another important area that has attracted the attention of researchers is indiscipline and student activism. There are 25 such studies. These are helpful in finding the answer to the question as to how the universities of India should prepare the youth for political leadership in the country. The studies done in the area can be broadly divided into three groups. One group includes those studies that have investigated student indiscipline. The second comprises studies of the student movement. The third group covers those studies that investigate the political socialization of students. Manaral (1985), Wangu (1980), Bandyopadhyay (1984) and Siddiqui (1980) studied factors related to student indiscipline in the universities. They found that the most potent factors influencing student indiscipline were po-

litical, social and home environment. Prasad (1980) studied the student movement in Bihar while Saxena (1979) studied hostility and alienation among university students. Another extreme aspect of this subject was studied by Gupta who investigated obedience to authority among university students. The third category of studies comprises those of Eakin (1970), Honap (1981), Shinde (1972), Siqueria (1980), Aswal (1982) and Wadhwa (1982). Eakin studied aspects of political behaviour and Honap looked into political socialization of college girls. Shinde and Siqueria made a survey of political consciousness among college students. All these studies attempted to study various aspects of socialization dealing with ideology, view-point attitude etc. Other researchers like Sandhu and Aswal studied factors of family background, personality, SES, etc. That contributed to political socialization. Wadhwa (1982) went a step further and studied the attitudinal structure of student dissidents. Lal (1981) studied the economic aspects of activism by studying the methods of financing university student elections. All these studies lead to the conclusion that political activism is inevitable, therefore, the institutes of higher learning should accept this. Rather, these institutes should boldly accept their obligation to provide political socialization to students and prepare future leaders for the nation. One drawback of all these studies is that generalizations cannot be drawn because of their limited scope with respect to political socialization.

All the studies reported in the preceding paragraphs show that students have been seen in isolation rather than as part of the system. There is need to study the influence of peer groups on educational motivation, aspiration, and achievement motivation. The influence of peer group on educational motivation, aspiration, achievement of students, etc. has to be examined in depth.

Heads of the Institutions

Another most important functionary of the higher education system is the head of the institution in the position of a principal or vice-chancellor. He is the decision-maker and is responsible for academic and non-academic developments in the institution. Recent politico-social changes and the changing role of higher education (delinking jobs from degrees, correspondence courses, etc.) have made the position of the head of an institution quite different to what it was a decade ago. This has opened up new dimensions of the prob-

lems for research. But this important area has not been able to attract the attention of researchers. Only four studies could be identified in this area. Desai (1979) drew a profile of the university vice-chancellor with respect to his socio-economic background, career pattern and attitude towards the university. The sample of the study consisted of 112 vice-chancellors of different universities. It was found that vice-chancellors belonged to middle-class families and had the characteristics of a typical bureaucrat. Prasi (1982) studied the role of the university rector in the decision-making process. With a sample of 130 rectors of universities in Thailand, it was found that they carried out decision-making on the lines laid down by the university civil service commission of Thailand. In another study, Bhagia and Juneja (1986) studied the role performance of heads of colleges. The study revealed that heads performed the roles concerned with academic management, supervision and evaluation of the staff and these roles were not related to factors like age, qualifications and experience. Kumar (1986) looked into principal's administrative effectiveness in relation to work values, attitudes and self concept. It was found that work values and attitudes in a combined form significantly contributed to administrative functioning. The variables studied in the researches reviewed are so varied in nature that it is difficult to draw generalizations. There is need to study this important dimension of higher education with empirical data and deep insight. Various problems like politicization of the post of vice-chancellor, vice-chancellors not completing the full tenure of their appointments, states preferring IAS personnel as vice-chancellors—all these need to be studied at length so as to make out a case for preparing personnel for All India Education Service and devising training programmes for different levels of functionaries to manage the education system.

Teachers

The teacher is the main functionary of the higher education system. His role is different from that of teachers working in schools or elsewhere as the social organization of institutes of higher learning is altogether different. The functions of the teacher in higher education are threefold, viz., teaching, research and extension. Recently some politico-economic changes have added a new dimension to his roles and functions and that is political activism. Such roles and functions have attracted the attention of researchers and they have studied various aspects concerning the teacher, viz., the intellectual

qualities of teachers in higher education, their attitudes, their perceptions, competence, preparation for teaching and activism.

Sathyagirirajan (1985) studied personality, motivation and professional preparation of college teachers. The psychological needs of college teachers were studied by Desai (1975) who also attempted to suggest measures to meet those needs. Kumar (1978) identified teachers' personality needs with respect to the colleges of Haryana. The objective of all these studies was to find out personality characteristics of teachers that made them distinct from others and contributed towards their competence in the long run. The most potent characteristics identified were emotional stability, conscientiousness and self-sufficiency.

Another group of researchers made a study of attitude of teachers towards research (Goyal, 1980), the teaching profession (Jaleel and Pillay, 1977 and Bhatnagar, 1980), and the higher education system (Gupta, 1979). These studies used different attitude scales developed for the purpose. Singh (1979) studied superstitiousness among college teachers. The assumption of study was that superstitiousness as a continuum prevailed in the society and people differed only in degree: Sathappan (1984) studied teacher productivity with respect to research publications and related this with their personality characteristics. He applied multiple regression analysis and found that need achievement and positive attitude were the significant contributing factors towards productivity.

Researches have also been conducted with respect to professional preparation of teachers of higher education. Some of these are status studies and others are impact and intervention studies. Singh (1980) made a critical study of the preservice and inservice teacher education programmes for college teachers. Patted and Mench (1979) made a study of professional preparation of teachers of Karnataka State. All these were status studies. Researchers like Patted (1975) made a study of perceptual that lead to the success of the teacher education course. Pattanshetti (1985) developed a self-instructional microteaching course and studied its effectiveness with respect to improvement in college teaching. The studies done so far in the area of teacher preparation do not show a continuity of the variables studied. The obvious reason is that the need for teacher education at the higher education level has not been recognized as yet by the teachers. Now, when the National Policy on education has emphasized it and implementing agencies have started Academic Staff Colleges

(ASC) for the orientation of teachers of colleges and universities there is need to make a concerted effort to look into the various variables related to a teacher education programme.

Another area that has recently drawn the attention of researchers is activism on the part of teachers of higher education. Verma (1985) studied the role of the Federation of University Teachers' Association of Bihar. Through descriptive study he concluded that the teachers association worked as a pressure group and was helpful in providing direction to the educational policies of the state government. Such positive roles of the teachers associations need to be looked into further so as to develop a code of conduct for teachers and draw up guidelines for teacher accountability.

Curriculum

Higher education has been recognized as an instrument of national development and social change. To achieve this aim, appropriate experiences have to be provided to youth. It is through these experiences that the youth develops the qualities of good citizenship. These experiences constitute the curriculum of higher education. If curriculum is to be effective in equipping youth with the knowledge, skills and attitudes necessary to achieve the goals of national development and social change, it has to be based on sound experience and valid research findings. Any restructuring of curriculum demands careful study of relevants research findings. Curriculum studies obtain their importance in view of society's expectations from higher education.

There is a group of studies that focuses on the goals and objectives of institutes and the innovations tried. Balaraman *et al.* (1982) examined the goal consciousness of institutes of engineering education. Rai (1982) studied the objectives of undergraduate programme in social science. The study revealed that goal consciousness was absent among the faculty. Rao (1980) made a critical study of the implementation of innovations in higher education in Andhra Pradesh. He concluded that lack of understanding of the objectives of the innovation led to its failure. The innovations studied by him were concerned with course content, organization of curriculum and the evaluation system.

The other group of studies is linked with the study of the system of organizing curricula. The assumption of these studies has been that the effect of learning experiences can only be observed in the context of the system in which these are provided. Some of these studies have

investigated the semester system and other correspondence courses.

The semester system, according to these studies, is different from the annual system with respect to diversification of courses offered, weightage given to various courses, flexibility and combination of specializations, workload on the students as well as teachers, and evaluation procedure. Pillai and Pillay (1979), Akhtar (1980) and Pillai and Mohan (1986) studied the working of the semester system in different universities through the opinion of teachers, students and parents. The studies revealed that the semester system followed in the respective universities was simply cutting the entire academic year into two terms. The necessary facilities required for the students and teachers were not being provided. In a similar type of study, Somaiah (1980) studied the perceptions of the college community about the desirability and feasibility of introducing the semester system in colleges. The study led to similar findings. The teachers felt the semester system was being conducted without providing facilities to the teachers and students with respect to smaller teacher-pupil ratio and proper planning. An overview of the studies shows that they investigated the working of the system through the opinion of the students or teachers. Simple opinions may not lead one to make suggestions for improvement. There is a need to make in-depth case studies to arrive at generalizations and make consequent changes in the system.

There is another group of studies that looked into the correspondence system of education. Biswal (1979) studied correspondence education in India with respect to courses offered, orientation programme, assignment, etc. The study was done at the macro level and the results revealed that correspondence courses in India were flexible but could not be arranged for certain areas of study because of lack of trained teachers. A similar type of study was conducted by Sahoo (1980) but at the micro level. He made a case study of a university offering correspondence courses. Ram (1984) made an evaluative study of correspondence education in terms of cost and academic performance. He found correspondence education to be economical. Such studies that make a deep analysis of the various aspects of the system are good. Now when the NPE has stressed the development of correspondence education and the Indira Gandhi National Open University has been established, the need for such studies has become even greater.

Another aspect of curriculum is course content. There are a few studies that have dealt with this aspect

in a broad way and examined the usefulness of the course content for students. Deshpande (1985) made a case study of the job-oriented and reconstituted courses at the degree level in Marathwada. Gharpure (1985) made a case study of medical education courses of Marathwada University. Some researchers developed their own curricula for different types of courses and found out their effectiveness. The studies of Sundararaj (1978) and Pai (1981) belong to this category. They developed course content in environment education and population education respectively. Still another type of study focused attention on the English component of the curriculum in higher education, both as medium of instruction and language study. Shanteswar (1982) investigated the role of English in higher and professional education in Karnataka. It was found that English was exclusively used for all types of written communication and was necessary for learning at the higher and professional education levels. Jacob (1985) studied the teaching of English through correspondence courses and proposed an integrated curriculum for English for undergraduate students. Researchers also developed curricula for other courses of study. Such curricula need to be studied with larger samples and from different angles.

Another aspect of curriculum that has attracted the attention of researchers is the methodology of teaching. Rightly so, as even the most perfect syllabus will remain dead unless enlivened by the right method of teaching. In an effort to find the most effective method of teaching, researchers have undertaken studies which relate to methods of teaching in general as well as to subject-specific methods. Joshi *et al.* (1984) made a survey of various methods of teaching adopted in various universities. In a similar type of study, Suchdev (1986) made a critical analysis of methods of teaching physics at the higher education level. Other studies of a similar nature have been those of Prasad Rao (1984), Patankar (1984) and Patted (1984). These studies tried to identify inadequacies in traditional methods of teaching and suggest some remedial measures. There are a few studies that ventured to experiment on methods of teaching and studied their effectiveness. Some researchers like Kaur (1983) tried out self-learning material. But the studies in methods of teaching at the higher education level are not articulate and hence inferences concerning adopting a particular style or method of teaching cannot be drawn.

An important aspect of curriculum that guides the whole system of higher education is the evaluation and

examination. For long, universities have been conducting experiments with one system of evaluation or another. Researchers took note of this and planned their studies accordingly. They investigated evaluation systems in higher education with respect to internal and external awards (Rasool, *et al.*) comparison of grades by different examiners (Gunasekaran and Jayanthi, 1979), effect of re-evaluation on results of the candidates (Deo, 1974), development of selection tests (Gautam, 1973). These researchers ended their observations with suggestions such as having an independent examiner for each question, using standard error of marking instead of the arbitrary principle of grace marks, etc. There is another group of researchers that has made a survey of evaluation system in different universities (Pillai, 1984; Khader 1983; Prasannakumar, 1979; Nath, 1980). They identified the inadequacies of the evaluation system, but could not provide pin-pointed suggestions to improve it.

Though curriculum and its different aspects have been discussed elsewhere in this volume, yet this issue was taken up here to view it from the angle of higher education. The problems of higher education are different from those of other levels of education. The curriculum, therefore, needs to be studied in the context of levels of education and objectives to be attained.

Management and Administration of Higher Education

During the last ten years, there have been sixteen studies related to administration of higher education in India. These fall into two main categories, viz., administration of universities and academic departments of universities, and administration and management of colleges and undergraduate programmes. Umadevi (1983) studied the organizational goals and organizational climate of Andhra University and also its faculty performance assessment. One of the findings was that the age of the respondent and not the global university climate determined the performance of faculty members. The climate factor of the university had less to do with faculty performance and more to do with faculty satisfaction. The study of Pandey (1982) revealed that the major problems facing universities and their administration were difficulties in the formulation of aims, choosing a medium of instruction, inadequate research facilities and lack of funds. The administration could not streamline procedures for affiliating colleges. Sharma, M.P., studied the three universities of Rajasthan in 1985. He found that all of them had identical

traditional structure, i.e. they had an administrator and administration oriented structure un conducive to autonomy and academic freedom. University departments had mainly a 'closed' or 'intermediate' type of climate except a very few departments with 'open' climate. The morale of the teachers was found to be low. Ramaseshan and Shenoy (1979) studied the organization and administration of Poona University and made number of recommendations regarding recruitment of teachers, registration of external students, granting of affiliations and organization of examinations, etc. Kanagasabapathy (1986) studied the management of change in the Madurai Kamraj University. He found that innovations could not take root in the university because of university authorities did not have any knowledge about the innovation, lack of participation by college principals, lack of familiarity with management by objectives on the part of the university authorities and lack of seriousness on the part of implementers. Portia's study (1979) on the structure and functioning of the academic departments of Andhra University found a sort of disjunction between the university structure and functions of the university. Another finding was that the academic departmental structure was not suitable for the changing objectives of the university. The young faculty felt the absence of involvement in the decision making process in the university. The study found overlapping of the functions of deans of faculties and principals of colleges. The major constraints identified were fear of losing departmental autonomy and fear of being criticized by other departments. Hommadi (1978) offered some conceptual outlines of how a university of developing country might transform itself and become an active agent for 'transformation'.

Problems of college management were studied by Anantu (1978), Awasthi (1981), Bose *et al.* (1973), Jaganmohan (1983), Kaushik (1979), Singh, N. (1981), Somaiah (1983) and Srivastava (1980), Anantu studied the private managements of colleges in Bombay and Marathwada and analysed the growth, membership, government policy on and functioning of private managements in urban and rural regions. Awasthi (1983) highlighted the problems faced by college principals in dealing with management, university authorities and state government. Bose *et al.* (1973) examined the academic, financial and administrative arrangements of seven big colleges of Calcutta. He found that they spent more than their income on maintenance of teaching and non-teaching staff and could not afford to spend on improving academic programmes. Jaganmohan (1983)

studied the problems of colleges affiliated to Andhra University. The rural private colleges suffered from lack of teaching aids and teachers of these colleges had neither facility nor opportunity to improve their qualifications. The colleges, especially in the rural areas, suffered from acute paucity of funds for physical academic improvement. Kaushik (1979) found that the principals of colleges affiliated to Meerut University were achievement oriented, egocentric and flexible. The administrative behaviour of urban principals on interactive, progressive and achievement oriented dimensions was rated higher than that of principals of rural colleges. Pressure groups among teachers, maintenance of law and order in the college, and the prevailing general atmosphere in the society were some of the important background factors affecting the administrative behaviour of college principals. A similar study of the problems of affiliated colleges was made by Singh (1981) in which he compared the problems of colleges of Gujarat University and Gorakhpur University. The problems were more or less similar in nature.

Three studies are concerned with administration of institutions offering professional courses of study — medical colleges (Somaiyah, 1981), nursing and teacher training colleges (Srivastava, 1980) and professional and non-professional institutions (Shukla, 1980). It was found that professional and non-professional institutions differed with respect to their environment. Engineering and medical institutions differed from non-professional institutions in eight out of nine climate dimensions. The environment of medical institutions was totally different from that of non-professional institutions. Somaiyah found that absence of aptitude for medicine and inadequate facilities were reasons for the deterioration in the standard of education in medical colleges.

Two studies belonging to neither of the two categories were by Rao (1982) and Sharma (1977). The first study dealt with courts and university education and the second was a trend analysis of enrolment in higher education. The study by Rao came to the conclusion that the courts had generally protected minority interests and their right to establish and administer educational institutions. Regarding academic matters, the courts had shown great restraint and unwillingness to interfere with the internal autonomy or internal working of educational institutions.

RESEARCH GAPS AND PRIORITIES

Considering the phenomenal increase in the number of studies on higher education, one may conclude that research in this area has taken long strides. However, a deeper look into the nature and quality of the research would soon dispell this impression.

True, research in higher education has grown quantitatively insofar as the number of studies is concerned, but even a cursory glance would reveal that the bulk of this research consists of replication studies adding little either to the fund of knowledge or by way of suggesting solutions to some of the vexed problems in higher education in our country.

The repetitive nature of the research, on the one hand, and its horizontal spread, on the other, has inflated the apparent volume of research. The repetitive feature is not a new one in research in social sciences, but it adds only to the number and not to the generalizable research findings. The horizontal growth of research in a large country of the size of a subcontinent is understandable but if this phenomenon is accompanied by vertical growth on crucial problems, it will be an indication of a good, healthy research climate. Unfortunately, little vertical research appears to have entered the imagination of researchers and research institutes.

There are some studies on management of higher education. Some IIMs have specialized units to study problems concerning management of higher education. The Administrative Staff College has carried out research studies in this area. In spite of this, if one has to collate the findings and derive generalizations, one is at a loss to do so. The same story is repeated in the case of research on curriculum in higher education. A planned programme of research in any area has the capacity to yield generalizations. This is not the case with research in higher education in our country. An eminent educationist of the sixties and seventies said that education was a matter of faith to him and 'it could not be put to empirical studies'. Programmes of improvement in higher education still float on the ocean of faith, though we are told repeatedly to prepare adequately to enter the 21st century.

Disjointed research lacking in sequential planning yields disjointed results. The gaps have necessarily to be bridged. Researchers will have to be at pains to see it through. As of today, we do not have a coherent theory of curriculum planning in higher education. We do not have even a research-based policy on internal assessment. We do not have any research base to plan institu-

tional finances or institutional management. The organizational climate has been studied. The principals' administrative behaviour and its relation with institutional climate are studied. Research, however, does not tell the administrator how to change a principal's administrative behaviour to improve institutional climate.

The 200 and odd studies reviewed here are theoretical and yet not helpful to build any theory in higher education. They are therefore irrelevant and do not, in any meaningful way, meet the research needs of the higher education system.

The last decade has seen rapid politicization of students, teachers and administrators of higher education. Teacher unrest is a major feature of the eighties. Student activism is a symptom of the ill health of the system. The research fraternity has not contributed anything substantial to explain and change these symptoms. Hence, the case for having a close look at research priorities in higher education.

The NPE, 1986, and the Programme of Action have provided ample guidelines for researchers to fix research priorities in higher education. Research is needed to study the administration and management of higher education so that it can fulfil the goals of higher education. The current indications are that the system is deteriorating. The entire system suffers from tensions — tension among students, tension among teaching and non-teaching personnel, low morale of teachers, absence of accountability among teachers, absence of learning climate. The NPE suggests some urgent steps that are needed 'to protect the system from degradation'. Various aspects of higher education need research-based improvement programmes. Researchers have to provide answers to questions like, how to re-

duce tension among the teaching fraternity? How to improve their morale? How to bring about teachers' accountability? If teaching is to improve, how to evaluate its outcomes? In what way, could teachers be put on a path of self-renewal? — these would provide guidelines for research priorities.

University management too needs a fresh look. Most of the problems of higher education have their origin in the weak and unimaginative management system. There are some studies on university management but they are few and far between. The entire management system has to be studied in-depth and a management system has to be evolved which would be conducive to ushering in a new climate in higher education institutions.

The curricula of various disciplines need research-based restructuring. The present efforts are praiseworthy but they must be strengthened empirically by valid findings. This is possible only through a systematic and planned research programme and not by ad hoc research activity.

The students have been studied but there is a need to look into their problems in the light of new societal needs, the scientific and technological knowledge explosion and advances in the pedagogy of distance education. The Indian student is second to none in his zeal to study and advance but the shattered image of the university has first to be rebuilt. How to achieve this? Researchers have to provide the answer.

If these programmes are to be implemented, the Government of India and the UGC would do well to think of establishing a centre of research and training in higher education as an autonomous body. This will stimulate research activities in higher education, leading to change and improvement.

ABSTRACTS: 1523—1583

- 1523.** ABRAHAM, M., *A Study of Certain Psycho-social Correlates of Mental Health Status of University Entrants of Kerala*, Ph.D. Psy., Ker. U., 1985

The objective of the study was to explore the association between mental health status and psycho-social variables for total sample and subsamples. The main hypothesis was that each of the independent variables selected for study would exert a significant influence on the dependent variable (mentally health status).

The sample for the study comprised 880 predegree students (454 males and 426 females) from colleges affiliated to the University of Kerala, selected on the basis of a proportionate stratified sampling technique, with representation given to sex and age of subjects, area of residence and optional subjects selected for specialization. The tools used were: Psychological Needs Inventory (M. Abraham and P. Koodapuzha, 1979); Kerala Masculinity-Femininity Scale (A.S. Nair, 1978); Kerala Introversion Extraversion Scale (A.S. Nair, 1978); Students Adjustment Inventory (M. Abraham and R. Jacob, 1979); Students ACTivity Inventory (M. Abraham and R. Jacob, 1979); Family Integration Inventory (M. Abraham and F. Fernandez, 1978); Mental Health Status Scale (M. Abraham and B. Prasanna, 1981); and Kerala University Test of Intelligence for University Entrants (A.S. Nair and Anandavalli Amma, 1972). The independent variables included (1) need for love and affection, (2) need for recognition and approval, (3) need for self-esteem, (4) need for security, (5) need for independence, (6) need for creative expression, (7) need for knowledge and new experience, (8) need for achievement, (9) need for delight, (10) need for adequacy, (11) need to be needed, (12) need to belong, (13) masculinity-femininity, (14) introversion-extraversion, (15) adjustment with opposite sex, (16) adjustment with authorities, (17) involvement in politics, (18) participation in extra-curricular activities, (19) participation in social welfare activities, (20) family environment, (21) family relations, (22) family acceptance, (23) training for independence (within the family), (24) freedom for action, and (25) mutual trust and approval (within the family). The statistical techniques used were the Pearson product-moment correlation, two tailed tests of significance for differences between means and factor analysis to compare factor structures of different

groups.

The main findings were: 1. Twenty-three of 25 psycho-social variables, except need for knowledge and new experience and involvement in politics, showed significant correlations with mental health status, but none of the values obtained were very high, showing that the influence was not considerable. The estimation of common variance confirmed this finding. 2. Twenty-two psycho-social variables discriminated between high and low mental health status groups (unselected group) and 18 psycho-social variables discriminated between high and low mental health status groups equated for intelligence, age and sex. 3. The factor structure for the three groups—total sample, high mental health status group and low mental health status group, differed significantly from one another in terms of number of factors, the loadings and in terms of factors present in each structure.

- 1524.** AGRAWAL, M., *A Study of Life Stresses among University Students*, Ph.D. Psy., All. U., 1985

The hypotheses were: (1) Evaluation of events in terms of distress and balance of effect, compared to change, would be more closely associated with measures of strain. (2) Undesirable events would be more closely associated with strains than desirable ones. (3) The self-assessment of stress is expected to predict strains better than the use of average scale values. (4) Weighted stress scores compared to simple stress scores would be more highly correlated with measures of strains. (5) Subjects' stress scores given due weightage would predict strains better than otherwise.

The sample consisted of 657 university students of graduate and postgraduate classes. A Scale of Stressful Experiences for Students (SSES) was developed by the investigator. The data were analysed with the help of correlation technique.

The findings were: 1. Simple stress score was a powerful predictor of strain, but the subjective assessment of events for the amount of distress they evoked (but not for change and balance of distress and relief) was more strongly correlated with the measure of strain. Weighted stress score based on ratings of an independent group of judges was only as highly correlated with the subjects' symptom scores as the simple stress score. 2. The events which occurred in one year prior to the study had consistently higher correlations than correlations of shorter periods within that year or the total life span excluding

this one year. 3. Life events did account for a significant proportion of variance in symptom scores but shared no variance in the number of times a subject sought medical help from a doctor. However, not all but only undesirable events could account for this variance. And from among undesirable occurrences, those which were threatening to the ego and related with the indisposition of the family members were more crucially linked with illness symptoms. Stresses emanating from interaction with family and study environment were also important contributors to strains. 4. The occurrence of day-to-day problems had higher pathogenic significance than even major life events. 5. There was a trend towards higher correlations on weighting for stress of recurrence but the differences between the two types of correlations were not significant. 6. Stress scores were higher in the case of males compared to females, Muslims compared to Hindus, rural students compared to urban students, students living in hostels, hired rooms or lodges compared to those staying in their own homes.

1525. AMARSINGH, *Normative Study of Physical Fitness of Panjab University Men Students*, Ph.D. Phy. Edu., Pan. U., 1986

The objectives of the study were (i) to develop a test battery for measuring the physical fitness of men students, (ii) to establish norms for the physical fitness of men students belonging to Panjab University, (iii) to establish norms for different age groups of men students belonging to Panjab University, (iv) to establish norms for rural and urban men students belonging to Panjab University.

A sample of 4000 students was randomly selected from 40 different colleges affiliated to Panjab University. Their age ranged from 17 to 22 years. Physical fitness of the sample subjects was measured with the help of the Fleishman Physical Fitness Test Battery. The battery included tests such as extent flexibility, dynamic flexibility, shuttle run, cricket ball throw, pull-ups, leg-lifts, cable jump, standing broad jump, dodge run, 600 metre run-walk.

The study concluded: 1. The Fleishman Physical Fitness Test Battery was found to be quite a workable tool to measure physical fitness of men students of Panjab University. 2. Percentile and T-scale norms were established for age groups 17 years through 22 years separately for each of the test items of Fleishman Physical Fit-

ness Test Battery. These included extent flexibility, dynamic flexibility, cricket ball throw, shuttle run, pull-ups, leg-lifts, cable jump, standing broad jump, dodge run and 600 metre run-walk. 3. Physical fitness improved linearly according to age with subjects falling in the age group of 20 years and 21 years having exhibited superiority over the other age groups taken in the study. 4. The students belonging to the rural areas were significantly superior in their performance on different items of Fleishman's Physical Fitness Test Battery when compared age-wise to the students from urban areas.

1526. ANNAMMA, A.K., *Values, Aspirations and Adjustment of College Students in Kerala*, Ph.D. Psy., Ker. U., 1984

The main objective was to gain an understanding of the values, aspirations and adjustment of college students in Kerala. The hypotheses were: (i) Sex, age, curriculum, religion, residential background, socio-economic status, family size and academic achievement are related to spiritualism and adjustment, (ii) A majority of students take a liberal stand with regard to the husband-wife relationship, parent-child relationship and mixing of boys and girls, (iii) A majority of students believe in God and have an open minded approach to religion, (iv) A majority of students have high educational and vocational aspirations, but do not have clear plans relating to selecting a vocation or marriage and, (v) A majority of students do not have bad habits like smoking and drinking.

The sample for the study was made up of college students drawn from pre-degree college entrants ($n = 300$) and college leavers (final year degree, $n = 1200$) enrolled in 10 colleges. The sample was further stratified on the basis of sex and subjects of study. The tools used were the Mathew Materialism Spiritualism Scale to measure an individual's materialism-spiritualism orientation, a questionnaire to measure aspiration with reference to education, vocation and marriage, prepared for the study, a problem checklist to study adjustment and a general data sheet which elicited information relating to values, aspirations, and adjustment, and also collected information about habits, practices and opinions. The problem checklist included educational health, home, financial, sexual, emotional and social problems. The data obtained were analysed applying two-way analysis of the variance technique for testing the relationship of the seven areas of the problem checklist to materialism-

spiritualism orientation and for testing the relationship with variable such as age, curriculum, religion, academic achievement, residential background, income, family size, father's educational and occupational level. The effect of sex was repeated for spiritualism scores as well. Analysis based on percentages was done for the information obtained through the general data questionnaire.

The main findings were: 1. A majority of the college students were conformists, with a stable system of values, and without rebellious tendencies. 2. The younger college students were more spiritualism oriented as compared to the older group which was more materialism oriented. 3. Academic achievement, residential backgrounds and father's education and occupational status had no relationship to value orientation of college students. 4. Economic status was related to value orientation, with the lower income group being more spiritualism oriented and the higher income group more materialism oriented. 5. Size of family was related to value orientation with students from large families being more spiritualism oriented and those from small size families more materialism oriented. 6. A majority of students did not have clear goals about education, occupation or marriage. 7. Male students exhibited higher aspiration than female students. 8. No discrepancies were seen between self and parental aspirations. 9. Marriage was not viewed as an immediate prospect. 10. Boys and girls approved intermingling, but girls were seen to prefer the customary type of marriage. 11. Female students were seen to be better adjusted than male students in all the areas studied. 12. College education was not seen to have any impact on value orientation and the behaviour of the students.

1527. ASHAR, R.R., OAK, A.W., *An Investigation into the Study Habits of Adult-learners of Open University Programme of S.N.D.T. Women's University and the Study of Impact of Guidance on Their Study Habits*, Department of Research, SNTD U., 1985 (ICDE financed)

The objectives of the study were (i) to know the study habits of adult learners of the Open University Programme, (ii) to locate the needs of adult learners as related to their study, (iii) to locate the differences of adult learners, (iv) to find out the relationship between study habits and age, education, occupation, marital status and family responsibility, and (v) to study impact of

guidance on study habits.

A rating scale consisting of 43 statements with respect to different aspects of study habits was developed by the researchers. The data were collected by mailing the tool to 250 students reading for the B.A. Part II examination of the Open University Programme. About 120 students responded to the rating scale. Out of these students, only 46 attended the guidance lectures. Data were collected before and after the treatment. Analysis of data was done by using descriptive statistics.

Major findings of study were: 1. Students restricted their studies only to the reading material supplied by the university. 2. Students of the age group 41-50 scored lower in the areas of organization of subject matter and presentation of subject matter. 3. Students whose age was below 21 required guidance in methods of study. 4. Working and non-working women needed guidance in the areas of references and methods of study. 5. The guidance lectures improved the students' study habits with respect to completing assignments, concentrating on studies, understanding the material while studying and preparation for examinations.

The educational implications of the study are: (1) Guidance lectures prove beneficial. The organizers of the course should make provision for such lectures. (2) Guidance lectures should be need-based. (3) The students can be helped in the area of finding and selecting references by arranging library orientation programmes for them.

- *1528. BABEL, M., *A Study of Adjustment of Foreign Students Studying in the Universities of Rajasthan*, Ph.D. Edu., M. Sukh. U., 1986

The objectives of the investigation were (i) to identify the main adjustment problems of foreign students studying in the universities of Rajasthan, (ii) to find out the differences in the adjustment of foreign students on the independent variables of nationality, sex, age, level of study, branch of study, duration of study, marital status and the type of sponsorship, (iii) to study the expectations of the foreign students from the institutions in which they were studying and also to find out how far their expectations were being fulfilled, (iv) to compare the academic performance of the students belonging to different faculties, and (v) to offer suggestions for better adjustment of foreign students in the universities of Rajasthan.

The study was conducted on a sample of 425 foreign

students from all the universities of Rajasthan. The sample included students from 22 different nations which, for the purpose of this study, were classified into nine nationality clusters. The sample included both male/female, married/unmarried, self-supported/government-supported students of various age groups. The tools used were a Personal Data Blank, an Adjustment Inventory and an Expectation Questionnaire.

The main findings of the study were: 1. The best adjustment of foreigners was in the academic area and the worst in the physical area. 2. Overall adjustment of Nu (Fiji) was the best and that of Uganda and Zaire the worst. 3. The typical problems of adjustment which were experienced by more than 60 per cent of the foreign students were lack of accommodation, inadequate medical care, non-availability of telephone facility, lack of clean water and water cooler, unappetizing food, and home sickness. 4. The academic performance of the students was average. 5. A sizable section of foreign students did not find the methods of teaching in Indian universities up to their expectations.

1529. BANDYOPADHYAY, B., *Physical Fitness and Respiratory Functions in Urban and Rural Male College Students with reference to Their Energy Balance*, Ph.D. Physiology, Cal. U., 1982

This study dealt with anthropometric status, body fat, energy metabolic status, physical fitness and respiratory functions of college students and inter-relations between some of these factors. The differences due to domicile and habitual physical activity in both the groups of urban and rural college students were also examined.

The sample consisted of 705 male college students in the age group 16 to 24.5 years, stature 144 to 190 cms and body weight 32 to 90 kg classified into four groups, urban non-athletes (n = 193), urban athletes (n = 160), rural non-athletes (n = 188) and rural athletes (n = 164). The subjects were randomly selected from healthy male college students of several districts of eastern India. The data were collected by studying the subjects in their respective places (and not in a laboratory). The tools used were the Harvard Step Test (for physical fitness), the Dry Gasmeter (for respiratory functions), the Skinfold Thickness Measurement at various sites (for body fat), the Scholander Micrometer Gas Analyser (for energy expenditure) and an oral questionnaire (for nutritional status). In addition, the thermal loads on the subjects

were assessed by determining heat stress indices, using a whirling psychometer, a Kata cooling thermometer and a globe thermometer. The statistical tools used were t-test, percentiles, product-moment correlation and regression coefficient.

The major findings were: 1. The body heights of the students of urban non-athletes (UN), urban athletes (UA) and rural athletes (RA) were the same, whereas the students of the rural non-athlete (RN) group were significantly shorter. 2. RAs had higher body weight than RNs but there was no difference in body weight between UAs and UNs. 3. The urban group had better nutritional status than the rural group but the RA group was in negative caloric balance, whereas the other three groups were in positive caloric balance. 4. The daily energy intake of RNs was lower than that of UNs but, on the contrary, the daily energy expenditure of RNs was higher than that of UNs. 5. Body fat was highest in UN, then in order came RN, UA and RA; the caloric balance in the four groups was also in the same sequence. 6. In relation to the physical fitness and respiratory function, athletic students were better than non-athletic students, urban and rural taken together; but there was no difference between UN and RN or UA and RA. 7. Habitual physical activity greatly altered the physiological status of the subjects as was evident from the better health status of the athletic students, both urban and rural, but the difference in physiological status between the urban and rural students was negligible.

1530. BENAL, B.I., *A Critical Study of Development of Higher Education in the State of Karnataka during Six Five Year Plans (1950-1985) with special reference to Karnatak University*, Ph.D. Edu., Kar. U., 1987

The major objectives of the study were (i) to study the development of higher education in Karnatak University, (ii) to study qualitative development through institutional materials, (iii) to study the improvement of quality of teachers, (iv) to study the problems of examinations and evaluation, (v) to critically evaluate the nature and extent of development with respect to the trends in developed states in the country, and (vi) to suggest steps for improvement of higher education. The hypotheses of the study were: (1) There is no increase in the growth and expansion of higher education in the Karnatak University region. (a) There is no increase in the enrolment in higher education at degree level dur-

ing the plan period. (b) There is no increase in the enrolment in higher education at postgraduate and at research level. (c) There is no improvement in the service conditions of the teachers during the plan period. (2) There is no improvement in the quality of higher education during the plan periods. (3) There is no improvement in the efficiency of the teacher of higher education during the plan period. (4) There is no improvement in the examination system during the plan period. (5) There is no improvement in the system of evaluation during the plan period.

In order to collect the relevant data required for the study the annual reports of the Karnatak University right from 1949 to 1985 which covered six five year plans were procured. The data drawn from them were arranged and classified in accordance with the objectives of the study. A questionnaire was prepared with the help of experts in order to collect certain other information required for the study. The entire population of the study was 190, covering 54 university departments and 136 constituent and affiliated colleges of higher education, but the researcher could finally get only 120 completed questionnaires.

The major findings of the study were: 1. There was a considerable quantitative growth of the member of institutions, namely, the affiliated and constituent colleges and university postgraduate departments during the plan period. 2. It was also seen that the receipts and expenditures had significantly increased due to the developmental programmes initiated and implemented. Similarly, it was seen that the sources of income had increased to the best advantage of the educational institutions. 3. The library of the Karnatak University had expanded considerably and it was believed to be the second biggest in Asia. 4. With regard to modernization of science departments, physics, chemistry and geology had greatly expanded and were offering leadership courses in their disciplines in the country. 5. For student facilities, financial efforts had not been made to the extent expected. 6. Qualitative improvement at the affiliated colleges and also at the university was not very significant. Hardly any effort had been made for reorientating the inservice training providing up to date knowledge to the teachers recruited at the affiliated colleges and at the university level. The authorities of the university had not made any attempt to look into the academic problems of the teachers. 7. There had not been any consistent effort made by the university authorities to evolve new techniques and devices in evaluating the students' progress at the examinations.

1531. BISHT, UMA, *A Study of Interpersonal Trust among Undergraduate Students and Teachers of Kumaon Region*, Ph.D. Edu., Luc. U., 1986

The sample for the study consisted of 720 undergraduate students and 120 teachers drawn from four colleges of Kumaon region. A Likert type scale was constructed by the investigator to measure interpersonal trust of undergraduate students and teachers. The questionnaire consisted of 22 negative and 26 positive items.

The main findings of the study were: 1. Male interpersonal trust was higher than that of the females. 2. The interpersonal trust of science undergraduate girls was significantly lower than that of the boys. 3. There was no significant difference in the interpersonal trust among arts boys and girls. 4. The interpersonal trust scores of arts students were significantly higher than those of the science students. 5. There was no significant difference in interpersonal trust among affiliated and constituent college students. 6. There was no significant difference in interpersonal trust among affiliated college teachers and constituent college teachers. 7. There was no significant difference in interpersonal trust among science teachers in affiliated and constituent colleges.

1532. BOSE, P.K., et al., *Graduate Employment and Higher Education in West Bengal*, Dept. of Statistics, Cal. U., 1982

The objectives were (i) to identify the role played by the education system in general, and the higher education system in particular, in the overall socio-economic development of the country and, conversely, the influence extended by the social, cultural and economic factors in the development of the education system, (ii) to identify the inconsistencies, both quantitative and qualitative, that had developed in the past in the education system, (iii) to throw light on the main variables to be considered in formulating policies of intake to different disciplines and institutions, (iv) to identify the factors which hindered implementation of such policies and to suggest ways for minimizing the effect of these factors, (v) to develop a system of indicators which could be used by national policy makers, administrators, potential employers and students for decision-making, and (vi) to create a data base for researchers in educational planning, particularly in the area of employment.

The sample was selected using the technique of strati

fied random sampling. Data from 1928 students, 480 unemployed graduates, 1343 employed graduates and 32 employers were collected through four different questionnaires.

The findings led to the following recommendations: 1. The state should expand its educational activities. 2. Participation of educated females in the labour force and their absorption in the work force should be increased. 3. Emphasis on enrolment in arts subjects in universities and colleges should be reduced. 4. Disparities in cost per student in different types of educational institutions should be reduced as far as possible and expenditure on the creation and maintenance of physical facilities should be increased. 5. Because of the fact that students generally and female students particularly depended on their parents for information and advice about careers, it was desirable that parents be kept informed about the availability of jobs in different sectors. It was essential, however, that placement bureaux and similar organizations attached to educational institutions provided adequate information about job prospects for different courses of study to students. 6. The educational system should take into account different criteria for selection used by employing organizations. 7. Employers should note that good income alone does not satisfy their employees. 8. The employment process should be so regulated that help from relations and friends and political connections or caste reservations did not become important in securing jobs. 9. To promote self-employment, steps should be taken to impart the necessary training to educated youths and to provide them with the necessary capital to the extent possible. 10. Emphasis on agriculture and rural extension programmes should be increased in universities and colleges. 11. The content of higher education should be made more responsive to the world of work. 12. The content and curriculum of higher education should be so revamped that recipients of such education might find their educational background relevant and adequate for their job requirements. This aspect needed emphasis more in the case of low and language students.

1533. CHAKRAPANI, CH., *Transactional Paradigmatic Study of Unemployment as a Stressor among Unemployed Graduates and Postgraduates*, Ph.D., Soc., And. U., 1985

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

tionship between age and stress, (ii) to find out the effect of education of parents on the stress among the unemployed, (iii) to find out the difference between stress of graduates and postgraduates, (iv) to find out the relationship between stress indicators and the health of the individual, and (v) to find out the difference between stress of individuals belonging to the arts faculty and science faculty.

The sample for the study consisted of 312 unemployed persons out of which 212 were graduates and 100 postgraduates. All these individuals had been unemployed for at least one year. The data were collected with the help of following tools: (i) the General Stress Indicator Scale having dimensions like stress due to money matters, unemployment, criticism of family members, criticism of relatives, criticism of friends, etc.; (ii) the Stress Indicator Response Scale; a battery of five scales concerned with emotionality, radicalism, hostility, behaviour adjustment, health, and ego-strength with a reliability ranging from 0.62 to 0.85 and having with factorial validity; (iii) the Unemployment Perceptions Scale having areas for self-accountability, selective job performance, rational reaction, fairness of society, self-esteem and self-respect. Data were also collected about age, sex, marital status, caste, education, parental occupation, family size, number of close friends already employed, duration of unemployment, family as a source of help, extravagance, non-familial material support and religiosity. The data so collected were analysed with the help of analysis of variance, multiple regression and canonical correlation.

The findings of the study were: 1. Age was a positive contributor to stress. 2. Intermittent job experience was a predictor of stress. 3. The observed role of mother's education in promoting stress experience was the result of greater internalization of work norms by educated mothers than uneducated mothers. 4. The respondent's unemployment anxiety was aggravated by his educated mother's anxiety. 5. The five stress indicator responses, viz., emotionality, radicalism, hostility, behaviour adjustment and health did not interrelate with one another. Emotionality was consistent in its association with behaviour. 6. Taking emotionality as an indirect stress indicator response, regression analysis showed that self-esteem, selective job preference, and delinking of education from jobs contributed to lower emotionality among educated unemployed. 7. Post graduates and respondents belonging to the arts faculty and the artisan castes had reported high average radicalism scores. 8. Higher education and low caste status reinforced each

other in causing high radicalism among the educated unemployed. 9. Ego-strength, family support, and fairness of society perception had been positively associated with radicalist tendencies. 10. None of the background factors such as age, sex, etc., except level of education, was seen to affect the hostility dispositions. The graduates scored higher on hostility than postgraduates. 11. Neither background factors nor biographical and socio-economic factors affected behaviour adjustment. 12. None of the background factors accounted for variation in health response. 13. Perceptual and personality factors had a great role in stress responses. 14. The institutional factor of family support tended to cause a rational perception of unemployment among the respondents. 15. High religiosity contributed to a stronger ego and better behaviour adjustment as well as a balanced radical ideology. 16. Irrational unemployment perceptions caused variations in stress indicator response dimensions of hostility, emotionality and radicalism. 17. The educated unemployed had low stress experience, in general with high behaviour adjustment and high health rating. Those who were getting good family support had strong ego. The institutions of caste, friendship and education had specific and contingent effect on stress variation.

1534. CHATTERJI, A., DAS, T.C. and BASU, P.K., *The Role of University Students in Village Development Work*, Dept. of Statistics, Cal. U., 1956

The main aims were (i) to, assess the possibilities of two schemes, viz., (a) the apprenticeship training in village development for selected university teachers and students, and (b) social service camps organized by the colleges and sponsored by the university, which were implemented with a view to developing in teachers and students a realistic spirit of social service and an understanding of the problems of the village and villagers, and (ii) to highlight the social service work done by the students of the Calcutta University during the summer vacation, 1955.

The village development work carried out by the students was identified. A quantitative estimate of the work done was made. The nature and extent of work accomplished at the camps was ascertained. The workability of the schemes were studied.

The study revealed: 1. The main purposes of the schemes were fulfilled. The student workers had developed an attachment to the villagers. They had acquired

a true picture of the conditions in villages, the problems of villagers and knowledge of the methods to be adopted for inspiring them to help themselves. 2. The students had realised that in this work of national uplift everyone had his own part to play and the extension work was a continuous process, and had expressed their eagerness to be given further opportunities for participating in this national enterprise.

1535. CHATTOPADHYAY, K.P., BOSE, P.K., and CHATTERJI, A., *Undergraduate Students in Calcutta: How They Live and Work—A Survey*, Dept. of Statistics, Cal. U., 1959

The major objective was to present a correct picture of the conditions under which undergraduate men students in Calcutta lived and worked.

The sample was drawn in a stratified random manner. All Calcutta colleges for imparting undergraduate courses were selected. The students were divided into two groups, first year and third year. The particular students of each college formed a stratum wherefrom the samples were chosen at random. A little over four per cent of total student population of boys only were studied. Although samples were drawn from girls' college also, only a limited number of cases could be investigated. The final sample size was 859, of whom 575 were first year and 284 third year students. The selected students were interviewed for information concerning self. The family information was collected from the head of the family as far as practicable.

The study revealed: 1. There was remarkable vitality of joint family and middle class traditions. Ninety per cent of the students lived with parents or relatives. Five per cent lived in hostels and five per cent in unrecognized messes where the monthly expenses were of the order of Rs. 50/-. A few only could afford to meet the cost of living away from the homes of relations. 2. In all 13,000 students came from families where the per capita income was less than Rs. 30/- per month, and 14,000 from families where the income lay between Rs. 30/- and Rs. 50/- per month. The former class lived below subsistence level and the latter on the margin. 3. The poverty of students was reflected in food habits, incidence of illness and malnutrition from which about 43 per cent of the student population suffered. The principal problem was that of poverty. The main factor was the limited means of the students who were largely drawn from middle class population which had been hit

hardest by postwar conditions. 4. Living and working conditions of the majority of the undergraduate students in Calcutta was far from satisfactory.

*1536. CHOWDHURY, G.S., *Entry to Higher Education in Bangladesh—An Investigation into Students' Characteristics*, Ph.D. Edu., MSU., 1986

The major objective of the study were (i) to study the socio-economic background, home environment, academic performance, curricular interests and other characteristics of, (a) those who passed the HSC examination and entered higher education, (b) those who passed the HSC examination but did not enter higher education, (ii) to ascertain if entry into higher education was associated with the characteristics of students, and (iii) to make an indepth study of the students who entered higher education and those who did not enter higher education with respect to perception regarding higher education motivational and aspirational aspects and reasons for not entering higher education, etc.

For the investigation, all the nine colleges of Faridpur district and one college of Rajbari district of Bangladesh were taken. The overall sample comprised 1325 students. These students appeared at the HSC examination of 1985, of whom 711 failed. Out of 614 successful students 466 entered institutions of higher education. Thus, the sample consisted of 466 entrants and 148 non-entrants. For indepth study, at least five per cent were selected randomly from each group. The data were collected with the help of a general information sheet, Socio-economic Status Scale, Home Environment Rating Scale, Cocurricular Interest Inventory, Educational Aspiration Scale, Occupational Aspiration Scale, Institutional Adjustment Inventory, Sentence Completion Test, Academic Performance Sheet, and two interview schedules for indepth studies. Data regarding the characteristics of the students were collected by administering the tools to all respondents. Data related to academic performance and admissions were collected from the official records. Interviews for indepth studies were conducted with small groups of respondents. The obtained data were analysed by employing the chi-square test and calculating percentages.

The major findings of the study were: 1. Of the students who entered higher education, 75 per cent were boys, 67 per cent were of rural origin, 74 per cent were Muslims, and 48 per cent studied science as against 36 per cent who took arts. 2. Eleven per cent of fathers and

27 per cent of the mothers of entrants were illiterate. 3. Forty-nine per cent of entrants had good home environment while only about two per cent had poor home environment. 4. The average and low achievers at HSC were almost equally represented in the non-entrant group. None of the non-entrants was a high achiever. 5. Three-fourths of the non-entrants had high education aspirations. 6. About 57 per cent of the non-entrants had high occupational aspirations. 7. Sixty-one per cent of the non-entrants had low achievement motivation as against 39 per cent who had moderate achievement motivation. 8. Entry into higher education was independent of religion, birth order, age, mother's education, nature of family, family size, siblings' education, students' residence and institutional adjustment for total sample, but, it was associated with sex, and home location. 9. Stream of study at HSC stage affected the entry into higher education. 10. Father's education and occupation, socio-economic status and home environment were found to be associated with entrance into higher education. 11. Academic performance at HSC and SSC was associated with college entry. 12. Cocurricular interests of students and their achievement motivation were found to be associated with the college entry.

*1537. DESHMUKH, LAJ, *Women and Continuing Education Programme of SNDT Women's University*, Research Centre for Women's Studies, SNDT U., 1985

The main objectives of the study were (i) to get the socio-economic profile of the participants, (ii) to ascertain the needs and problems of the participants in the continuing education programme, (iii) to ascertain the attitude of the participants to these programmes, and (iv) to study the impact of the programme on the participants as perceived by them.

The sample was drawn from the participants of three programmes obtained from the department of continuing education and those who attended two programmes organized by the Bhagini Samaj. The sample included 175 participants and 210 non-participants. The tool used for data collection was a self-administered questionnaire. An interview schedule was used to collect data from a few faculty members.

The major findings were: 1. The participants' age ranged from below 25 years to above 56 years. 2. Above 75 per cent of the participants were below 46 years. About 20 per cent were in the age range 46-55. Among

the participants, there were more respondents (56 per cent) from the older age group (36 and above). 3. More than 92 per cent of the participants were Gujarati-speaking citizens of Bombay. 4. About 65 per cent of the participants were married women. They were married when their age was in the range 16-25 years. 5. About 56 per cent were house wives, 17 per cent were employed, 18 per cent were students and about 7 per cent had no specific activity. 6. About 17 per cent were below S.S.C., about 14 per cent were S.S.C. pass, about 23 per cent were graduates. About six per cent of the participants were postgraduates and one per cent of participants had a Ph.D. degree. 7. More than 60 per cent of the participants (N=116) had husbands who were graduates, postgraduates or with a Ph.D. degree. 8. Fifty per cent of the married participants had husbands engaged in business, ten per cent had husbands who were professionals. 9. About 44 per cent of the participants had a total monthly income of up to Rs. 1500. 10. About 60 per cent came from a household size of 4 to 6 members. 11. About 61 per cent had nuclear families and 34 per cent had joint families. 12. About 83 per cent of the participants had 1 to 3 children. About nine had per cent 4-6 children.

1538. GOGATE. S.B., *Creating Social Awareness among College Students*, IIE, Pune, 1985

The major objective was to initiate an action project to create social awareness among college students.

The project was initiated in five colleges in Pune City on an experimental basis during the year 1981-82. The coordinator of the project personally handled the project in all the colleges with the help of teacher and student representatives. Discussion on important topics of interest to youth, regular participation in some social activity around the college, visits to projects of social importance around the college and a three to four days annual camp were the activities employed as methods to create social awareness. During the years 1982-83, 1983-84 and 1984-85 the number of colleges voluntarily participating in the project was 25, 50 and 75 respectively, with around fifty students from each college. The function of the coordinator was to organize regional seminars for college teachers and student leaders, visit each college at least once a year, and evaluate the programme of the year at the end of the academic year. A set of 12 booklets was prepared by the IIE in relation to this project. These booklets were useful for self-study

and discussions in colleges.

The evaluation of the project yielded the following findings: 1. There was a small number of socially aware teachers in colleges. They were scattered. It was necessary to organize them in a group which could be influential in inculcating social awareness among students. 2. If properly motivated, a small band of students could be raised in every college to do some fruitful social and developmental work around the college. 3. Unless the heads of colleges, the principals were willing to undertake the programme, no programme for which colleges had to raise small finance and had to incur some expenditure, would be successful. 4. Due to vacations, examinations, elections, sports and such other activities, college students found it difficult to participate in social activities around the college regularly. 5. Teachers and students participated in the project without any additional benefits. 6. Coordination at regional or state level was necessary to make the project a success.

1539. GREWAL, C.S., *A Study of Physical Fitness, Attitude towards Physical Activity and Adjustment among University Students across Socio-economic Levels*, Ph.D. Phy. Edu., Pan. U., 1986

The objectives of the study were (i) to determine differences among three socio-economic groups in relation to physical fitness, attitude towards physical activity and adjustment, and (ii) to find out the relationship between physical fitness, attitude towards physical activity, and adjustment.

The sample for the study consisted of 549 subjects studying at undergraduate level. They were selected from ten colleges affiliated to Panjab University, Chandigarh. The data for physical fitness were collected through the AAHPER Youth Fitness Test comprising pull-ups, sit-ups, shuttle run, standing long jump, 50-yard run and 600-yard run. The other tools used for collecting data were: (i) the Bhullar Physical Activity Attitude Scale (1976) and (ii) the Bell Adjustment Inventory (1937).

The findings of the study were: 1. The subjects of three socio-economic levels, i.e. high, middle and low, differed on the variables of physical fitness, attitude towards physical activity and adjustment. 2. The middle socio-economic group was superior in physical fitness to the other two groups. This group also had a more positive attitude towards physical activity than high and low socio-economic groups. 3. The socio-economic

level groups differed in various components of physical fitness as measured by the AAHPER Youth Fitness Test. 4. The middle socio-economic group was better adjusted to the variable of adjustment over the low socio-economic group. 5. There was a significant difference between home adjustment of the middle socio-economic group and the high socio-economic group. But there was no difference in home adjustment of the high SES group and the low SES group. 6. There was no significant difference between middle and low socio-economic level groups with respect to attitude towards physical activity. 7. There was a significant relationship between attitude towards physical activity and adjustment in the case of all the socio-economic groups. 8. There was no significant relationship between physical fitness and attitude towards physical activity in any of the three socio-economic groups. 9. All the socio-economic groups showed that there was no relationship between physical fitness and adjustment.

1540. GUPTA, I., *Obedience to Authority amongst University Students: An Experimental Study*, Ph.D. Psy., Del. U., 1983

The objectives of the study were (i) to analyse the causes of obedience/disobedience behaviour amongst students of the University of Delhi, (ii) to find answers to the following questions: (a) Is there a significant difference in the mean level of shock administered and percentage of fully obedient subjects in different experimental conditions? If yes, what factors account for these differences? (b) Is there any sex difference in obedience behaviour? (c) Is sex of the 'victim' an important factor in evoking difference in obedience behaviour? (d) Do subjects experience any tension during the course of the experiment? (e) Do subjects relinquish personal responsibility? (f) Do subjects' predictions underestimate the actual shock level? (g) Are there differences between predictions of self and others? (h) Does normative information have any effect upon subjects' predictions? (i) What specific factors account for the obtained obedience/disobedience behaviour?

The study was undertaken to judge the validity of Milgram's analysis of the factors of obedience and disobedience to authority. Employing Milgram's obedience paradigm, the study was planned in two phases. Phase I was designed to examine the role of forces that acted upon an individual in an obedience situation, specially the role of age, sex, group pressure, pain cues, status and

frame of reference, and an individual's obedience behaviour. The sample for this phase consisted of 140 subjects, 120 undergraduates and 20 graduates. The study was conducted on the pretext of a scientific inquiry in which the subjects were asked to act severely against another person (a confederate), by giving him shocks under the commands of teacher authority. The measures recorded for each subject were the level of maximum shock administered, the level of maximum tension reported, the level of subjects' estimate, the maximum pain felt by the victim, attribution of responsibility to the experimenter, teacher, and reasons for obedience and disobedience behaviour observation made by the experimenter. The analysis of data was done with the help of analysis of variance. The second phase of the study was designed to investigate the predictions of the subjects about their obedience behaviour to the commands of the authority and to see the effect of the factors of sex and normative information on their self and others' predictions. The normative information was provided by presenting the break-off of the subjects in the voice feedback condition. The sample consisted of 48 subjects, 24 males and 24 females; each subject was required to predict the maximum shock level for self, other males, and for other females, under conditions of normative information and non-normative information. The data were treated with analysis of variance and t-test.

The findings of the study were: 1. There was a definite sex difference. Male subjects were more obedient than female subjects. Female subjects were more obedient while working against male victims than against female victims, and there was higher obedience to male authority than to female authority. 2. In the absence of pain cues from the victim, the obedience behaviour increased in 'remote condition'. 3. There was an increase in obedience with age. Graduate subjects in 'voice feedback condition' obeyed to a higher level than undergraduates in the simple condition. 4. The behaviour of the defying peers accounted for lower obedience in 'group pressure condition'. 5. The status of the victims was an important factor in 'authority as victim condition'. 6. The level of obedience decreased with increase in status of the victims. 7. Prior knowledge of consequences of the act given to the subject enhanced obedience behaviour in 'induced frame of reference condition'. 8. Females and defiants reported higher level of tension and pain as compared to males and obedient. 9. 'Scientific purpose' and 'forced by authority' were the two main reasons reported for obedience

behaviour. 10. The reasons reported for disobedience were 'unreasonable severity of punishment', 'forced by authority' and 'conducted the experiment', 'administered shocks on command, for attribution to the self and 'incapable to learn', 'attribution to the learner'. 11. Females and defiants relinquished more personal responsibility than males and obedient. 12. Higher obedience behaviour was predicted by males both for self and others, and also higher obedience behaviour was predicted for male than for females. 13. The predicted obedience behaviour was higher under normative information condition than under non-normative information condition. 14. Self predictions were significantly lower than others' predictions in no-norms condition, but not so in norms condition. 15. Self predictions of the male were higher than those of females. 16. The subjects in the prediction group underestimated their obedience behaviour as compared to the experimental group; females underestimated more than males.

1541. HARIGOPAL, K., *Self Ideal Disparity and Personality Factors among College Students*, Ph.D. Psy., And. U., 1975

The study attempted to find answers to the following questions: (i) What is the relationship between self-ideal-disparity (SID) and adjustment? (ii) What are the personality factors that significantly differentiate high SID and low SID subjects? (iii) What are the typical personality profiles of high SID and low SID individuals?

The sample for the study consisted of 333 postgraduate students representative of arts and science faculties of Andhra and Osmania Universities. The age range of these students was 19 to 34 years. There were 161 students from the arts faculty and 171 from the science faculty. The tools used in the study were: (i) the Osgood Semantic Differential Scales, (ii) an essay to be written by the subjects about what they thought about themselves, and (iii) the Cattell 16 P.F. Questionnaire.

The findings of the study were: 1. There was a significant relationship between SID and the personality factor of adjustment versus anxiety. 2. The low SID subjects tended to have higher ego strength than the high SID subjects. The low SID subjects were emotionally more stable and mature than the high SID subjects. On the other hand, the high SID subjects, because of low ego strength, tended to be emotionally less stable, low in frustration tolerance, changeable and plastic, neuroti-

cally fatigued and of worrying disposition. 3. SID was correlated linearly with ego strength. 4. The low SID subjects tended to be high in character strength as measured by the G factor. 5. SID was found to be related significantly in a negative direction to the personality factor venturesome versus shy behaviour. 6. SID was also negatively related with the personality factor, shrewd versus artless. 7. Guilt-responses, as measured by the personality factor 'O' of 16 PF, differentiated the high and low SID groups, with high SID groups scoring significantly higher than the low SID group. 8. The low SID group was found to score significantly lower on factor O₃ indicating more of sociability and group dependence on their part than the high SID subjects. 9. Self-concept control characterized the low SID group. 10. The low SID group tended to be more sedate, relaxed, composed and low in ergic tension as compared to the high SID group. 11. The low SID group presented a picture of socially outgoing, uninhibited individuals who were good in maintaining interpersonal contacts. The high SID subjects on the other hand were shy and inhibited in interpersonal contacts. 12. The high SID group tended to be high in general emotionality and frustrated. The low SID group on the other hand was enterprising, decisive and having a resilient personality. 13. The high SID group scored higher on the factor on neuroticism than the low SID group. 14. The low SID group was found to be emotionally mature, stable and calm with adequate control over emotions and general behaviour. The high SID group on the other hand did not have control over emotions and was easily affected by the feelings that upset them.

1542. HARMEET, K., *A Psychometric Study of Motivation of College and University Students of Chandigarh*, Ph.D. Psy., Pan. U., 1984

The objective of the study was to test the following hypotheses: (i) The Indian students are high on extraversion, social desirability and achievement motivation but low on manifest anxiety and neuroticism. (2) The female students are higher on neuroticism, anxiety, achievement motivation and realistic motivation than male students. (3) On the whole, male students score high on extraversion but low neuroticism, manifest anxiety, achievement motivation and realistic motivation. (4) The science students are low on extraversion but high on neuroticism, anxiety and realistic motivation in comparison to arts students.

The sample of the study consisted of 773 students of Panjab University belonging to various categories, such as the 163 university male arts group, 53 university male science group, 45 university female science group, 160 university female arts group, 52 college male science group, 51 college male arts group, 81 college female science group, 54 college female arts group, 54 foreign male group and 56 foreign female group. These sample subjects were administered the following tools: (i) the Eysenck Personality Inventory (1964), (ii) the Taylor Manifest Anxiety Scale (1953), (iii) the Lynn Achievement Motivation Test (1969), (iv) the Cattell 16 PF (1970), and (v) the Spautz Realistic Employee Motivation Questionnaire.

The findings of the study were: 1. Indian students in general scored lower on neuroticism and manifest anxiety than their foreign counterparts. 2. The foreign female students scored higher on neuroticism, achievement motivation and realistic motivation but lower on anxiety in comparison with foreign male students. 3. Indian male students scored higher on extraversion than female students. 4. Indian male students scored lower on neuroticism, manifest anxiety and achievement motivation than female students. 5. The university male science group and college female science group were higher on extraversion in comparison with their counterparts in the arts group. But the university female science group and the college male science group were lower on extraversion than their arts group counterparts. 6. Science students scored lower on neuroticism, anxiety and realistic motivation in comparison with arts students. 7. The cluster analysis of all the ten groups and all the eight variables showed that motivation of all the ten groups was different since no cluster was formed, however, there was clustering of different groups on different measures of motivation, indicating some commonality as well as differences of motivational patterns among the students.

***1543.** JAIN, R.P., *A Study of COSIP and COHSSIP*
Sponsored by the U.G.C. in Selected Colleges of
India, Ph.D. Edu., MSU, 1985

The major objectives of the investigation were, (i) to study the objectives of COSIP and COHSSIP as accepted by the teachers, (ii) to study the emphasis laid on the accepted objectives of COSIP and COHSSIP for their attainment by the teachers, and (iii) to study the existing position of COSIP and COHSSIP with regard to

their specified aims and objectives.

The study employed the descriptive survey method. A purposive sample was drawn from the randomly selected colleges where COSIP and COHSSIP were continuing. The number of colleges having COSIP, or COHSSIP, as well as COSIP and COHSSIP together, selected for the study were nine, eight and four respectively. The principal's role was studied as an administrator as well as a teacher. The number of principals selected for the study was 21. The number of teachers (including principals as teachers) selected from the colleges for studying COSIP and COHSSIP was 146 and 127 respectively. The number of students selected for the study of COSIP and COHSSIP was 260 and 240 respectively. The data were collected with the help of a checklist developed for studying the COSIP and COHSSIP objectives, a questionnaire developed for studying the realization of objectives of COSIP and COHSSIP by teachers, a second questionnaire developed for studying the students' reactions, and a third questionnaire developed for studying the problems faced by the principals in the implementation of the programme. Obtained data were analysed by computing percentages, ranks and mean scores.

The major findings of the study were: 1. The objectives of COSIP and COHSSIP which were accepted by the teachers were to introduce new methods of instruction, to enrich the library and to develop self-study habits in the students, to develop instructional materials, to make optimum use of common facilities, to introduce internal assessment and to start interdepartmental and intercollegiate programmes. 2. Teachers laid emphasis mostly on the same objectives which they accepted for COSIP and COHSSIP. 3. It was found that the progressive methods of instruction such as assignments, seminars, tutorials, group discussions, symposia, workshop activities and project work were adopted by varying percentages of teachers and these methods were found of significant help to students, whereas guest lectures were found of limited use to students. Internal assessment was found to be useful in assessing students. 4. The majority of colleges were not able to make full use of grants received from the U.G.C. 5. COSIP and COHSSIP had a significant positive impact on students' achievement.

***1544.** JOSEPH, T.M., *Progress and Problems of Higher Education in Maharashtra since Independence (1947-1982)*, Ph.D. Edu., Bom. U., 1987

The objectives of the inquiry were (i) to study the progress of higher education in Maharashtra as evidenced by qualitative and quantitative measures, (ii) to study the innovative schemes launched by the universities, (iii) to identify the problems in higher education, (iv) to study the extent, causes, consequences and effects of these problems on higher education in Maharashtra, and (v) to suggest alternatives and changes in the pattern of higher education.

The study employed the descriptive survey method, using documentary analysis and library research. Visits to the campuses of all the non-agricultural universities of the state were undertaken. The method of purposive random sampling was used for the selection of the sample. The data were collected from six non-agricultural universities in Maharashtra state. Tools used for data collection were (i) reports of commissions and committees, periodicals, journals and newspaper articles on education, (ii) annual reports of the University Grants Commission and of the Bombay, Nagpur, SNDT, Poona, Marathwada and Shivaji universities, occasional publications of universities, university acts and related literature, (iii) a questionnaire for principals, professors, administrators and educationists, (iv) an interview schedule for the vice-chancellors, registrars, officers on special duty (Exam), principals of the colleges and senior professors. The data were analysed with the help of statistical techniques.

The study revealed: 1. There had been a tremendous increase in student enrolment since independence. 2. The enrolment of women had gone up and Maharashtra State had the largest number of students from scheduled castes as compared to other states. 3. There had been a noticeable increase in women's enrolment in the Marathwada University area. 4. The curriculum and syllabi for the various courses had been along traditional lines with little attempt to adapt to local needs and resources. 5. Shivaji University had a 'Work and Earn' scheme for needy students with facilities for students to engage in farming and conducting a canteen on cooperative basis. 6. Poona University had started a programme of distance education with the preparation of audio-visual material in the University's television studio. 7. Every university performed its academic role in the traditional pattern with very little change. Syllabi framed by the boards of studies in the universities and colleges allowed no scope for experimentation and innovation. 8. Many university posts had not been filled because funds were not forthcoming. Practically all the universities had deficit budgets that were carried for-

ward from year to year. 9. There was a marked decline in the attitude of teachers to their work as a vocation. A fairly significant number of college teachers gave tuitions and took up additional jobs. The existence of junior and senior college sections in the same college, with teachers having different salary scales, workload and service conditions created discontent. 10. The introduction of the 10+2+3 system had resulted in declining enrolments at the +3 stage in all universities. 11. No university had any special scheme for remedial courses for first generation learners. 12. There was an acute lack of hostels for women students belonging to these groups in almost all universities. 13. No university had initiated any exercise in long-term perspective planning. The main concern of the universities was to perform routine functions in which also efficiency was lacking due to absence of modern management techniques. 14. There was little coordination among the universities, state and central governments and the UGC.

1545. JOSHI, D.C., JOSHI, S.D., JOSHI, S.M., and PATANKAR, S.D., *A study of the Classroom Climate and Methods of Teaching adopted by Indian Universities*, MSU, 1984 (UGC financed)

The objectives of the inquiry were (i) to study classroom climate in the faculties of science, arts and home science of Indian universities, (ii) to study the attitude of university and college teachers towards teaching methods, the class-room process and communication patterns, and (iii) to find out the general patterns of teaching adopted by college and university teachers.

In order to collect data, two tools, viz., an Attitude towards Classroom Teaching (ACLT) Scale of the Likert type and a Students Perception of Classroom Climate (SPCC) questionnaire were constructed by the investigators. The sample of the study consisted of 1094 degree class students of 11 universities of India. The teachers sample included 16 home science teachers, 19 science teachers and 55 arts teachers of the affiliated colleges and faculties of the universities. The data were analysed on the basis of percentages. The responses on the open-ended items in the SPCC questionnaire were analysed qualitatively.

The major findings of the study were: 1. There was a satisfactory democratic climate in the classroom in the colleges and faculties under study. Most of the students had cohesive feelings, a master image of their teachers and a sense of achievement. Most of them accepted the

positive authority of their teachers. There was a good amount of mutual trust between the students and the teachers. However, in the case of science faculty, a significant number of students expressed a less impressive image of classroom. 2. The majority of the teachers used both teacher-centred and student-centred techniques in their teaching. They were aware of various communication patterns and favoured their practices. The teachers favoured periodic reinforcement through periodic evaluations. They showed their concern for the academic and professional growth of students. They expressed a high degree of commitment to professional values. 3. Further studies were needed for identifying the underlying factors that resulted in making science classes less democratic.

1546. KANAGASABAPATHY, R., *A Study of Management of Change in Madurai Kamaraj University*, Ph.D Edu., MSU, 1986

The objectives of the study were (i) to identify the various innovations that were introduced by the Madurai Kamaraj University in affiliated colleges during the last 15 years and categorize them according to their nature and impact, (ii) to trace the travel paths of some selected innovations from the point of origin to the point of implementation, and (iii) to locate certain crucial points in the process of implementation of innovations by Madurai Kamaraj University in affiliated colleges, with particular reference to planning, organizing, staffing, leading and controlling. Twelve innovations that were introduced by Madurai Kamaraj University in its affiliated colleges during the period 1965 to 1980 were identified and of them three innovations, viz., grading system, semester system and cocurricular activities, were chosen for study.

Twelve of the 81 affiliated colleges were purposively selected as the sample of the study. The secretary of the college committee, principal, office manager, 20 randomly selected teachers, assistant professor of physical education and 20 randomly selected students constituted the sources of data from each college in the sample, besides, three vice-chancellors, four officers of the university, the Director of Adult Education and two members of the syndicate academic council senate were also treated as sources of information. The tools developed by the investigator for the study were, (1) questionnaires for teachers, students and office managers/head clerks, and (2) interview schedules for vice-chancellor

and the convener of the syndicate sub-committee and officers of the university, secretaries of the college committees and principals of colleges. The data were processed in terms of percentages and frequency counts and analysed qualitatively.

The major findings of the study were: 1. An innovation could be institutionalized only if the user community found the need for the innovation. 2. A felt need was not a must in all cases of introducing innovation. 3. The university authorities not looking into the history of the innovation concerned was one reason for its discontinuance. 4. The university authorities not making any scientific calculation of the supportive and resistive forces came in the way of effective implementation of innovations. 5. Lack of participation on the part of the principals and other functionaries in the decision making process came in the way of effective implementation of innovations. 6. Lack of familiarity with management by objectives on the part of the implementers and lack of seriousness with which objectives were taken by them, came in the way of effective implementation of innovations. 7. The effectiveness of strategies and tactics in implementation were different for different innovations. 8. Adequacy of the management information system varied from innovation to innovation. 9. Effective planning, taking into account all management activities, was essential for successful implementation of innovations.

1547. KHADER, M.A., *College Environment and Personal Determinants of Graduate Efficiency: A Macro and Micro Level Analysis of Six Indian Universities*, Ph.D. Psy., JNU, 1983

The hypotheses of the study were: (1) Characteristics of universities, constituent colleges and affiliated colleges can be grouped into different institutional factors. (2) These factors vary on institutional typology. (3) The perceived college environment, personal factors, parental socio-economic status and achievements at school and college are related to the level of the university, level of the college and type of curriculum. (4) A significant relationship exists among perceived college environment and personal characteristics of students. (5) Variations in a student's personal domain can be characterised in terms of a few factorial dimensions. (6) School and college achievements of students are contingent on personal characteristics like social involvement values, achievement value, interest, scholastic aspiration, future professional interest, parental socio-

economic status and the type of school depends on the perceived college environment. (8) Perceived college environment and better than each one taken separately. (9) A student's level of occupation and level of earning are contingent on the college achievement of a student and on the father's occupational level.

Data were obtained at the institutional and individual level in three interlinked stages: macro level and micro level institutional data and micro level individual data. The macro level data on 79 institutional characteristics for 37 universities and constituent parts were obtained from UGC records. The micro level institutional data were obtained from 18 colleges covering science, arts and commerce courses on information about finance, library size, faculty, institutional size and scholarships for university departments, constituent colleges and affiliated colleges. A sample of 1265 final-year students from three streams was obtained using the random sampling procedure and data were obtained using a personal, characteristics questionnaire developed by the author. The data on college achievement were obtained for the same students after the announcement of the results. Prediction of levels of occupation and earning was on the data obtained from the Director General of Employment and Training on a comparable sample of 843 students from the same institutions. Usable predictors were father's level of occupation and college achievement. Level of occupation and level of earning were used as criterion variables. The data were analysed using the techniques of factor analysis, analysis of variance and stepwise regression analysis.

The major findings were: 1. University department, constituent colleges and affiliated colleges, as institutions, varied on five factorial dimensions, namely, affluence—A (universities and constituent colleges), affluence—B (affiliated colleges), intellectual orientation—A (universities and constituent colleges), monetary award (universities, constituent colleges and affiliated colleges) and intellectual orientation—B (affiliated colleges). These factors explained a little over 63 per cent of total variance. 2. Universities and colleges varied on institutional typology. 3. Inter-university comparisons on input pattern pointed to the superiority of university departments and constituent colleges over affiliated colleges on all institutional dimensions. 4. Universities with higher investments attained higher scores on institutional typology than those with average or marginal investments. 5. Variations existed by level of university and level of college on perceived college

environment, personal factor, parental socio-economic status, school achievement and college achievement at 0.05 level of significance. 6. It was indicated that students could be characterized and compared along parental social status, talent, values, social motivation, achievement orientation, pragmatism and social involvement and these factors explained 56.8 per cent of the total variance in the personal domain. 7. Students' personal characteristics explained 28.97 per cent variance in school achievement and 36.45 per cent variance in college achievement. 8. Perceived college environment explained only three per cent variance in college achievement. 9. Perceived college environment and personal characteristics together accounted for 46.63 per cent of variance in college achievement.

The implications are: 1. Increased funding or reallocation of resources based on needs may enable average or poor institutions to improve institutional quality. 2. Affiliated colleges should focus on a limited number of courses. Opportunities for inter disciplinary studies, to improve the quality of institutions and, in this context, more autonomy to colleges deserves attention. 3. A rethinking on the existing selection procedure in colleges is highly warranted since the existing admission policy breeds inequality. 5. Admissions to higher education need to be selective through a central testing system.

1548. KULKARNI, D.S., *Diploma and Degree Level Technical Education in Marathwada—A Study of Regional Imbalance in Vocational Education and Man Power Planning in Marathwada—A Case Study*, Swami Ramanand Teerth Institute, Aurangabad, 1985

The major objectives of the study were (i) to study the facilities available in colleges and polytechnics imparting technical education in Marathwada, (ii) to study whether the content of technical education was in conformity with the needs of the Marathwada region, (iii) to study the academic, administrative and financial difficulties of institutions imparting technical education, (iv) to study the regional imbalance in technical education in Marathwada, and (v) to make recommendations to improve technical education in Marathwada.

In this study, information was collected from institutes of technical education, employers employing technically trained personnel, and students who had passed out from technical institutions in Marathwada. Ques-

tionnaire was the main tool used. Data were collected from seven institutions, 150 teachers, 100 industrialists and 150 students. In addition, industrialists and institutional heads were interviewed. Information from government records was obtained.

Some of the findings were: 1. With the opening of colleges on a no-grant basis, facilities for technical education were on par with other regions of the state. However, a regular monitoring was needed in respect of new institutions to see to it that they fulfilled necessary conditions of staff and equipment. 2. Non-conventional courses were needed in view of the needs of industries during the next ten years. 3. As compared to the IITs, wastage in engineering education was quite high. Admission procedures, therefore, needed improvement. 4. Old institutions having a standing of 20 years or more had inadequate facilities compared to those in the adjoining regions. 5. The decision to allow private institutions to start technical institutes needed a cautious approach. It was necessary for the government and university to check that education imparted in these institutes was not sub-standard. 6. Courses recommended for introduction at PG and UG levels were architecture, electrical engineering, civil engineering, town planning, electronics, mechanical engineering, soil mechanics and water management at postgraduate level; architecture, automobile engineering, bio-engineering, chemical engineering, ceramics, computer science, electronics, instrumentation, industrial engineering, metallurgy, motion picture engineering, ocean technology, production engineering, plastic technology, pharmacy, paper technology, sugar technology, space technology, textile engineering and water management at the undergraduate level; refresher courses to be introduced for civil mistries, gobur gas plant mechanics, irrigation management, masons, plumbers, binders, carpenters, motor winders, pump operators, radio/TV service. 7. Admission to newly started institutes should be based on a common entrance examination to avoid wastage. 8. The respondents were of the opinion that the government should pay tuition fees of economically backward students, should establish a central laboratory for practical training to students admitted to institutes running on a no-grant basis and encourage postgraduate teaching in the region by providing grants for postgraduate education.

1549. KUMAR, P., *Cognitive Styles of the Postgraduate Students in Different Streams of University Education*, Ph.D. Psy., DHSGVV. 1984

The study was designed to ascertain the relationship of three cognitive style variables, viz. field dependence/independence, dogmatism and integrative complexity to curricular choices, and achievement in four streams (sciences, social sciences, commerce and languages) of academic concentration.

The sample of the study consisted of 266 postgraduate students studying in the final year of different academic streams of the postgraduate departments of Sagar University. Of these, 77 were from sciences, 71 from social sciences, 48 from languages and 70 from commerce. The data were collected by employing the Embedded Figures Test (EFT) which was a modification of figures selected from those used by Gotteschaldt, the Dogmatism Scale adapted in Hindi by Hasan, and the Interpersonal Topical Inventory (ITI) developed by Tuckman. The product-moment coefficient of correlation, mean, t-values and ANOVA were used to analyse the data and draw conclusions.

The findings of the study were: 1. The students in science were significantly more field independent, followed by commerce and social sciences. The subjects majoring in languages were most field dependent in comparison with other educational streams. The mean EFT scores of the students majoring in social sciences and commerce and social sciences and languages were not found significantly different. 2. The field dependence/independence dimension showed little relationship to overall examination performance. The results indicated that the subjects' dependence/independence was not significantly related to performance in mathematics and science, while it was negatively and significantly related with performance in social science, languages and commerce. 3. No significant difference was observed in the degree of dogmatism held by subjects in various educational streams. This indicated that open or closed mindedness was not related to performance in major subjects. Out of the four streams of education, a significantly negative relationship was observed in social science majors which showed that students with a low degree of dogmatism performed better in the examinations using essay type test. 4. Social science students were significantly more conceptually abstract than science students. Students of commerce were also more abstract than science students. Social science and commerce students did not differ in their level of integrative complexity. 5. Cognitively abstract students did better than cognitively concrete students in social sciences and commerce. 6. Students of social science and commerce were more cognitively abstract on the ITI measures

than the science students and the students with a cognitively abstract personality style did better than cognitively concrete students in commerce and social sciences. 7. The inter-relationship among three indices of cognitive style, viz., field dependence/field independence, dogmatism, and integrative complexity, was found insignificant except for the fact that highly dogmatic students were found field dependent and cognitively less differentiated or concrete in the area of interpersonal conceptual complexity. These three cognitive styles were therefore found to tap different aspects of personality, proving their independent existence and relevance for curricular choice and achievement behaviour.

1550. MALIK, R.K., *A Study of Self-Disclosure, Self-Acceptance, and Anxiety among College Students*, Ph.D Psy., Agra U., 1978

The objectives were (i) to investigate the degree of self-disclosure, self-acceptance and anxiety among college students, (ii) to investigate the relationship between self-disclosure, self-acceptance and anxiety, (iii) to find out as to what factor had been largely related to self-disclosure, (iv) to trace the effect of educational level on self-disclosure and self-acceptance among college students, (v) to trace the effect of sex on self-disclosure and self-acceptance among college students. The hypotheses were : (1) Self-disclosure and self-acceptance are measures of adjustment; hence they are positively related. (2) Self-disclosure has no significant relationship with anxiety. (3) Self-acceptance has no significant relationship with anxiety. (4) Sex has no significant relationship with self-disclosure as well as self-acceptance. (5) Education has no significant relationship with self-disclosure as well as self-acceptance.

The sample of 300 college students was selected from Agra University affiliated colleges by the stratified random sampling technique. Of these, 200 were males and 100 females. They belonged to undergraduate as well as postgraduate classes. The self-disclosure was measured with the help of Green's Sentence Completion Blank while self-acceptance was measured with the help of a Q-Sort Measuring Device also developed by Green. Sinha's Comprehensive Anxiety Test was used to measure anxiety of college students. The data were analysed with the help of correlation and chi square techniques.

The findings were: 1. Self-disclosure and self-acceptance were positively correlated for undergradu-

ate girls, postgraduate boys and postgraduate girls. These two variables were uncorrelated for undergraduate boys. 2. Self-disclosure had no significant relationship with anxiety, while self-acceptance had a negative relationship with anxiety among college students. 3. Sex played a significant role in self-disclosure. Girls tended to disclose more at both undergraduate and postgraduate levels. 4. Sex played important role in self-acceptance. Girls tended to be more self-accepting than boys at undergraduate level. 5. Education played a significant role in self-disclosure only in boys. The undergraduate boys tended to be more self-disclosing than postgraduate boys. 6. Education played significant role in self-acceptance for both boys and girls at college level. The undergraduate girls tended to be more self-accepting than postgraduate boys.

1551. MANARAL, J.B.S., *A Study of Indisciplined Behaviour in Kumaun and Garhwal University Students as related to Creativity and Personality*, Ph.D Edu., Kum. U., 1985

The investigation was designed to study the indisciplined behaviour among Kumaun and Garhwal University students as related to creativity and personality of students.

The sample for the study consisted of 556 students from the faculties of arts, science, commerce, law and education in the universities of Kumaun and Garhwal. Of these, 353 were male and 203 were female students. The Group Test of Intelligence for Adults by Tandon was used for measurement of intelligence. A Personality Inventory by Yashvir Singh and Harimohan was used for assessment of personality. The Verbal Test of Creativity by Baquer Mehdi was used for assessment of creativity and *Anushasan Heenta Mapani* (a scale for assessment of indiscipline) was devised by the investigator for measurement of indisciplined behaviour.

The main findings of the study were: 1. There was a negative correlation between the level of intelligence and the tendency to create indiscipline. 2. The various measures of creativity, i.e. fluency, flexibility and originality, correlated negatively with the tendency to create indiscipline. 3. In general, the tendency for creating indiscipline and a positive relationship with extroversion for the sample as a whole. 4. In the library situation, introversion had a positive relationship with the tendency to create indiscipline. 5. In the Kumaun University hostels introversion had a positive relationship with the tendency to create indiscipline.

*1552. MATHEW, A., *Protestant Missionary Attitudes towards Higher Education and Nationalism in Madras Presidency, 1872-1930*, Ph.D. Edu., JNU, 1984

The main objectives of the study were (i) to examine Protestant missionary efforts to bring about the conversion of India between 1872 and 1930, (ii) to discern and analyse the major attitudes and approaches which operated over these six decades, (iii) to examine two clearly demarcated themes and approaches to the evangelization of India through education and the intelligentsia, adopted and adhered to between 1872 and 1910, and (iv) the evangelization of the masses between 1910 and 1930.

The scope of this study was restricted to the Madras Presidency in general and the Tamil areas in particular. The main sources used in this study were missionary literature, mainly contemporary, much of which were printed records and collected from a number of church/mission archives and libraries.

The main findings of the study were: 1. It was in 1872 that a new perspective was advocated for Christian education by changing its purpose and role from conversion to evangelic preparation through diffusion of Christian principles. 2. When the object of educational missions was changed from conversion to evangelic preparation, it was conceived as the first part of the evangelization of the Indian higher classes and castes outside educational institutions. 3. When it became clear by the 1880s that the diffusion accomplished by educational missions failed to set a Christian direction, two steps were suggested. One was to strengthen the evangelic preparatory role of educational missions and the other, to set up a special agency to deal with the religious outlook of educated Indians. 4. They adopted a sympathetic attitude towards Indian religious awakening and an approach of presenting Christianity not as an exclusive religion but as one in which all the divine truths found in other religions could be seen in their fullness. 5. The disenchantment with the intelligentsia, besides a host of other factors, was responsible for rejecting the doctrine of evangelization through education and the intelligentsia. The thrust of the Protestant missionaries' activities after 1910 shifted in favour of the evangelization of the masses, and this resulted in the formation of the missionary councils at provincial and national levels. 6. The impact of nationalism on Indian Christians was expressed in their demand for home rule within the Indian church, Indianization of

the church hierarchy, including control over policy, and indigenisation of the forms of expression and worship. 7. The new outlook of the missions and Indian Christians, known as the Social Gospel Outlook, became evident from the *spirit of* the types of activities of the councils between 1924 and 1928 appeared to create an impression that what was agreed to in 1923, namely transfer of leadership of the church hierarchy and evangelic tasks into the hands of Indian Christians and a change of outlook from mass conversion to Social Gospel were becoming a reality.

*1553. MISHRA, A.N., *A Study of the Hostel Life of University Students of Haryana*, Ph.D. Edu., Kur. U., 1987

The objectives of the study were (i) to survey the various physical facilities available to the hostellers in the three universities of Haryana, (ii) to survey the opinion of the hostellers regarding various facilities available to them, (iii) to attempt inter-university comparisons on the opinions of the hostellers, (iv) to attempt comparisons of opinions regarding various facilities as expressed by rural and urban hostellers, (v) to survey and compare the general habits of the hostellers (H) and non-hostellers (NH) in the three universities, (vi) to compare the general habits of urban and rural hostellers in the three universities, (vii) to identify the additional facilities desired by the hostellers of the three universities, (viii) to select problems in some selected areas as experienced by the hostellers of the three universities, (ix) to survey the influence of hostel life as perceived by the hostellers, (x) to attempt comparisons on the five different dimensions of emotional maturity and total emotional maturity based on (a) inter-university differences, (b) rural and urban differences, (c) H and NH differences, and (xi) to attempt comparisons on the five different dimensions on AICS and total adjustment on inter-university differences, rural and urban differences and H and NH differences.

The tools used were the General Information Sheet (GIS), Observation Schedule-I (OS-I), Observation Schedule-II (OS-II), Emotional Maturity Scale (EMS) by Yashvir Singh and Mahesh Bhargav and Adjustment Inventory for College Students (AICS) by A.K.P. Sinha and R.P. Singh. Of the five tools, the first three were prepared by the researcher himself and the last two were standardized tools. A purposive sampling method was employed to select the sample from all the three

universities of Haryana—Kurukshetra University, Kurukshetra (KUK), Haryana Agricultural University, Hissar (HAU), and Maharshi Dayanand University, Rohtak (MDU). The sample consisted of 600 male students—100 hostellers and 100 non-hostellers from each of the three universities. Only those hostellers were selected who had been living in university hostels continuously for four years or more and such non-hostellers were selected who had never lived in a hostel.

The main findings were: 1. In KUK, a majority of the hostellers coming from urban areas did not consider most of the facilities favourably while hostellers from the rural area found the facilities adequate. 2. Almost all the physical facilities were considered as 'good' by both the groups of urban and rural hostellers of HAU. 3. Both the groups of urban and rural hostellers of MDU expressed dissatisfaction with almost all the facilities provided to them in their hostels. 4. Hostellers belonging to urban areas in KUK, were found to possess more undesirable habits than rural based hostellers but a reverse trend was observed both in HAU and MDU. 5. More than 50 per cent of the hostellers and non-hostellers of KUK had habits like 'visiting religious places' and, 'becoming regular in studies'. However, both the groups were reported to have had habits of visiting prostitutes (H=17 per cent, NH=6), masturbation (H=34 per cent NH=25 per cent smoking (both groups 29 per cent, drinking (H=27 per cent, NH=22 per cent, and copying in the examinations (both groups 14 per cent). The percentage differences of extravagant (H=28 per cent, NH=13 per cent), homosexual (H=15 per cent, NH=7 per cent) and eve-teasing (H=25 per cent, NH=12 per cent) were found significant, meaning thereby that the hostellers (H) of KUK possessed more bad habits than the non-hostellers (NH). Almost a similar trend was found in MDU as well. But the non-hostellers of HAU were found dominating on both good and bad habits except on 'masturbation' (H=56 per cent, NH=29 per cent). 6. In all the three universities the residents have demanded better quality of food, permission to use electric appliances and guest room provision. 7. A good number of hostellers (74 per cent) of KUK and 72 per cent residents of HAU felt that they learnt courtesy/manners and received social/academic guidance in the hostels. Similarly 65 per cent KUK, 68 per cent of HAU and 65 per cent of MDU residents reported that their shyness was removed during their stay in the hostels. 8. The hostels generally did not provide residential accommodation for the wardens or any teacher except for the tutors. Generally undergraduate

students have not been accommodated. 9. About 8 per cent of the residents of KUK prepared food in their rooms without seeking any permission. Similarly, the residents of KUK (40 per cent), HAU (60 per cent) and MDU (24 per cent) prepared tea in their rooms. 10. As many as 56-60 per cent of the residents were found to have hung or pasted pictures of pin-up girls in their rooms. 11. Residents had the habit of smoking—24 per cent in KUK, 28 per cent in HAU, 30 per cent in MDU, while they used wine—8 per cent in KUK, 10 per cent each in HAU and MDU. 12. The students of HAU were more emotionally unstable than the students of KUK. 13. The non-hostellers of HAU seemed to be lacking social adaptability as compared to the hostellers. 14. The HAU non-hosteller group was higher on personality disintegration as compared to the HAU hostellers group while the position was reverse in the case of KUK and MDU. 15. Hostellers exhibited a higher level of tendencies, like parasitic dependence on others, lacking objective interest and being unreliable as compared to non-hostellers. 16. Hostellers, on the whole, were emotionally more mature as compare to the non-hostellers. 17. Hostellers exhibited a better home adjustment and health adjustment than the non-hostellers. 18. Students of KUK have the highest level of social adjustment followed by MDU and HAU. Hostellers are found to be better socially adjusted than the non-hostellers. 19. KUK had the highest level of emotional adjustment followed by MDU and HAU. KUK topped in terms of educational adjustment of the students. 20. Urban hostellers were found to possess a lower level of adjustment than the rural hostellers.

1554. NARINDERBAL, K.. *A Study of Certain Personality and Demographic Correlates of Sex Role Attitudes amongst College Female Students*, Ph.D. Psy., Pan. U., 1981

The objectives of the study were (i) to find out differences between college girls having traditional sex role attitudes and those having self-oriented sex role attitudes on the variables—achievement motivation, ego strength, locus of control, conservatism/radicalism, anxiety, and attitude towards married working women, and (ii) to find out the difference between self oriented and 'other oriented' with respect to demographic variables, parents' education, parents' occupation, socio-economic status, type of family structure and position in the family.

The sample of the study consisted of 498 TDC (Three Year Degree Course), part II and III female students from the colleges of the Union territory of Chandigarh and Punjab state. Their age range was 16 to 22 years. They were administered the following tools: (i) Fand's Inventory, (ii) Qamar Hasan's Ego Strength Scale, (iii) the Sinha Anxiety Scale, (iv) the Vasudeva Scale to measure attitude towards working married women, (v) the Singh Socio-Economic Status Scale, and (vi) a personal data sheet. These tools helped in measuring sex role attitude, achievement motivation, internal-external locus of control, ego strength, anxiety, conservatism/radicalism, attitude towards married working women, socio-economic status, and demographic variables respectively.

The findings of the study were: 1. The more conservative the female students, the more they were traditional in sex role attitude. 2. The correlation between sex role attitude, and anxiety was significant. 3. The females scoring high on ego strength were high on non-traditional sex role attitudes. 4. The females having 'other oriented' sex role attitude tended to have a negative attitude towards married women taking up jobs. 5. Subjects having a high need for achievement were more self-oriented in sex role attitude. 6. The females with self-oriented attitudes tended to have a mother with higher educational attainment. 7. Females having career mothers were more self oriented in their sex role attitude as compared to females whose mothers were housewives. 8. The relationship of father's education and occupation with sex role attitude of females was not significant. 9. Females belonging to a joint family structure were more traditional or 'other oriented' in their sex role attitude. 10. The position of females in the family, that is, ordinal position had no impact on sex role attitude. 11. Socio-economic status of females and their sex role attitude were not significantly related. 12. The intention of females to go in for higher education had nothing to do with their sex role attitudes. 13. Females who intended to become housewives were more 'other oriented' in their sex role attitude.

1555. PADHAN, N.. *A Study of the Socio-economic Background, Academic Performance and Job-replacement of University Students*, Ph.D. Edu., MSU, 1986

The objectives of the study were (i) to study the cosmopolitan character of the university in horizontal, verti-

cal and substantive forms, (ii) to study the academic performance of students in different courses with regard to their socio-economic backgrounds, and (iii) to study the job-placement of students going out of the university after six months of the completion of courses.

The study was conducted on the students of M.S. University of Baroda with the following samples: 2021 students for objective (i), 837 students for objective (ii), 413 students for objectives (iii). The sample represented 11 faculties. The tools used were an information schedule, a questionnaire on academic life and future plans, and a questionnaire to follow-up university students. Record surveys, personal administration of questionnaires and mailing questionnaires were used for data collection. The data were collected on the sample available for the year 1983-84. Different statistical techniques, like ANOVA and t-test, were used for analysis of data.

The findings of the study were: 1. The student population of the M.S. University consisted of 77 per cent Gujarati, 22 per cent non-Gujarati and 1 per cent of foreign students. 2. Students belonging to almost all parts of the country were admitted in different faculties. 3. The students belonging to SC and ST, non-Hindu, poor communities, rural areas and first-generation learners were underrepresented in the university. 4. The university had a good research and teaching atmosphere in almost all its faculties. 5. The difference in academic performance of male and female, upper caste and SC and ST, Hindu and non-Hindu, hostelites and day-scholars and the rural and urban students was found to be insignificant. 6. Only in the case of the arts faculty, was socio-economic background found to be a determinant of academic achievement. 7. Academic life of arts, science and commerce students affected academic achievement. 8. Out of the total student product, 53 per cent were employed, 24 per cent continued with further studies, 6 per cent were self-employed and 17 per cent were unemployed. 9. The employment position was better among the products of the engineering, medicine and home science facilities, whereas it was moderate among the products of fine arts, applied science, social work and education and psychology faculties. 10. It was low in the case of arts, science, commerce and law graduates. 11. The future plans and demand in the job market played a major role in determining the employment of students of most of the faculties. 12. Out of the total employed alumni, 24 per cent were underemployed; the percentages were higher in the case of products of the

arts, commerce and law and social work faculties. 13. The job perspectives of a course motivated graduates to continue with further studies. 14. A large number of unemployed graduates had plans to take up further studies if they did not get jobs within a reasonable period.

1556. PANDEY, L., *Leadership Orientation among College Students*, Ph.D. Psy, Mag. U., 1983

The major objectives of the study was to investigate the socio-psychological variables which were responsible for preferring a particular style of leadership. Twenty-eight broad hypotheses were examined.

A field study approach was followed. A Leadership Orientation Questionnaire was developed and Dore's Attitude towards Leadership Scale was adapted and used to measure dimension of Leadership Orientation. Both scales were standardized. Tripathi's Personal Preference Schedule and Sinha's Frustration Scale were also used. A sample of 673 college students (1 year to IV year) of rural and urban areas with different socio-economic background was selected from Bhabua and Gaya by adopting the incidental-purposive sampling technique.

The major findings were: 1. Age had no impact on leadership orientation during the college stage. Boys scored more on 'democratic and consideration oriented' and girls on 'responsibility oriented' leadership dimension. 2. Lower SES students exhibited lower mean scores on democratic orientation than higher SES students. Higher caste and low socio-economic group students displayed a lesser degree of democratic orientation than lower caste and higher and middle income group students respectively. 3. Atheists scored more on the democratic and consideration oriented leadership dimension than theists. 4. Compared to rural students, urban students scored higher on the consideration oriented leadership dimension. 5. Highly leadership-oriented students possessed a higher degree of deference order, affiliation, intraception, succorance, dominance, abasement, nurturance, change, heterosexuality, impunitiveness, and impersistiveness as well as a lower degree of achievement, exhibition, autonomy, endurance, aggression, extrapunitiveness, intropunitiveness, extrapersistiveness and introper-sistiveness.

1557. PANDIAN, C., *Learning Styles and Teaching Strategies in Higher Education*, Ph.D. Edu., Ma-dras U., 1983

The study conceptualized a causal relationship between learner characteristics, their cognitive styles, learning styles, and their preference of teaching strategies. The objectives of the study were to identify, (i) learning styles of college students and their preferred teaching strategies, and (ii) the association between learning styles and predictive variables like types of college, sex, subject of study, personality traits, locus of control and English language ability.

Science and arts students (numbering 1200), from six out of 23 city colleges, were selected, using the multiple random sampling technique. The tools used were the Grasha Reichmann Student Learning Style Scale to identify learning style, Cattell's 16 Personality Factor Questionnaire, James's External/Internal Locus of Control Scale, the English Proficiency Test (standardized at the Central Institute of English and Foreign Languages, Hyderabad), the Teaching Method Ranking List, and a personal data information sheet. The analysis was done by using the chi-square test to establish the relationship between learning style and other variables, principal component analysis to identify teaching strategies, multiple discriminant function analysis, profile analysis for analysing the profiles of learning style and path analysis to test the validity of the path model.

The major findings were : 1. College students differed in their learning styles and in their preference for teaching strategies. 2. Four teaching strategies evolved for each of the seven learning styles. 3. Except their 'subject of study' all other variables were related to their learning styles. 4. Irrespective of students' learning styles, their preference for teaching methods formed three clusters. 5. Learner characteristics and cognitive styles were found to influence directly, and also through learning style, their preferences for teaching strategies.

1558. PATANKAR, S.D., *A Study of Instruction at the Postgraduate Level in the M.S. University of Baroda*, Ph.D. Edu., MSU, 1984

The objectives of the inquiry were (i) to study and compare opinions of students and teachers of postgraduate classes regarding objectives of various teaching techniques like lectures, seminars, tutorials, practicals, field trips and assignments, (ii) to survey the opinions of stu-

dents and teachers regarding the utilization of these techniques in the actual instructional process, (iii) to study the perceptions of students and teachers regarding the effective utilization of these techniques, (iv) to study the constraints faced by students and teachers in the instructional setting, and (v) to collect the views of teachers regarding pedagogic training for teachers, the evaluation systems and utilization of vacations for academic purposes.

This was a descriptive survey. The tools used were questionnaire and interviews. The data were qualitatively analysed. The sample consisted of 465 students and 87 teachers of the first and second year of the Master's degree courses in eight faculties of the university. Out of 87 teachers, 75 were respondents to the questionnaire and 12 were interviewed.

The major findings of the study were: 1. About 95 per cent of the students and 100 per cent of the teachers accepted the knowledge objective of the lecture technique, whereas 74.62 per cent of the students and 93.33 per cent of the teachers accepted that lectures could promote critical thinking. Only 65.80 per cent of the students and 72 per cent of the teachers felt that lectures could promote attitudinal change. 2. About 91.50 per cent of the students and 93.30 per cent of the teachers agreed that seminars could promote critical thinking. About 89.80 per cent of the students and 93.3 per cent of the teachers could develop ability to pose arguments. Seminars could develop higher order cognitive skills and certain communication skills according to 82.12 per cent of the students and 81.33 per cent of the teachers. 3. About 84.7 per cent of the students considered tutorials as helping students to overcome certain communication inhibitions; 77.92 per cent of the students felt that tutorials developed critical and independent thinking. 71.90 per cent of the students found tutorials a suitable means of developing rapport with teachers. About eighty-nine per cent of the teachers considered establishing rapport with students as the main purpose of tutorials. 4. Regarding practicals, students (87.91 per cent) opined that their value lay in their ability to develop certain mechanical skills of handling apparatus and equipment, whereas about 89 per cent of the teachers considered the main purpose of practicals was to develop the ability to test and validate theories. 5. About 75 per cent of the teachers and students felt that the main purpose of field trips was to stimulate interest in the subject and build up group morale. 6. With regard to the assignment method, students considered that the most important outcome was enrichment in participation in

group discussions, followed by developing good study habits and critical thinking. Teachers stated that assignments were most apt for developing study habits, secondly for developing critical thinking and lastly for enriching participation in group discussions. 7. Students tended to be more pragmatic in their views than teachers who tended to become more idealistic with regard to all teaching techniques. 8. A large majority of students were satisfied with lectures. Supplying handouts was not a regular practice but providing a bibliography seemed to be done more regularly. In the faculties of Home Science and Social Work, lectures were more often accompanied by written assignments. Seventy-six per cent of the teachers used the group discussion technique through the use of relevant bibliography. Teachers felt that students' participation in group discussion was confined to clarifying the issues. 9. A majority of students considered 40-60 students per class as desirable for a lecture and 15-30 for a seminar and a group discussion session. Students preferred a lecture or a seminar session to have a duration of 40-60 minutes. 10. Tutorials were not conducted in many faculties of the university. 11. Fifty-two per cent of teachers seemed to be satisfied with facilities to arrange practicals. More students (74.71 per cent) than teachers (58.66 per cent) felt that practicals were linked with theory. 12. A majority of students and teachers agreed that lectures could be made more effective if they were linked with discussion and question-answer sessions. 13. Both students and teachers felt the absence of departmental libraries as the biggest constraint on effective learning. The teachers felt that the university library was not up to date whereas students felt that Xeroxing facilities were lacking. Teachers seemed to be using few teaching aids during lectures. The main reason for the non-use of teaching aids was the non-availability of suitable aids. 14. Teachers felt the need for some sort of pedagogic orientation for university teaching. They preferred freedom to arrange tests for internal examinations. Twenty-seven per cent of the teachers found the traditional pattern of evaluation a constraint on their adopting student-centred teaching. Thirty-seven per cent of the teachers felt that students should not be evaluated by those who taught them. 15. Teachers did not favour any programme that encroached upon their vacation time. They felt that during vacation, students could best use the library.

The major educational implication of this study is that the university authorities need to plan out a programme of pedagogic orientation of the university teachers so that effective techniques of instruction and evaluation could be confidently used by teachers.

- 1559.** PATEL, V.B., and SHAH, S.G., *A Survey of Educational Researches carried out at Post Graduate Level in the Universities of Gujarat (1971-80)*, Dept. of Edu., SGU, 1982 (SGU financed)

The major objectives of the study were (i) to abstract the dissertations undertaken at M.Ed. level in the universities of Gujarat during 1971-80, (ii) to prepare a list (yearwise and universitywise) of the dissertations undertaken at M.Ed. level in the universities of Gujarat during 1971-80, (iii) to assess the general errors found in the dissertations under study, (iv) to assess the strengths and limitations of the dissertations under study, and (v) to enlist the uncharted or least charted areas for further researches.

The study was confined to South Gujarat University, Sardar Patel University, Maharaja Sayajirao University, Gujarat University, Gujarat Vidyapith, Saurashtra University and Bhavnagar University. The dissertations submitted to these universities during the period under study were studied for preparing abstracts of the same. Personal visits to the universities were also made.

The major findings were: 1. In all, 1459 dissertations were submitted to the universities under study. 2. The most preferred areas for research were administration of education, teacher training, teacher behaviour, the teaching learning process, reading skills, personality adjustment, and pupils' behaviour. 3. Research designs most popular amongst researchers were survey and experimental. 4. Tools widely used by the researchers were questionnaires and psychological tests. 5. Major limitations of dissertations were neglect of case studies and action researches, defective questionnaires and loose style of writing, references and bibliography. 6. Some of the dissertations were found so good that they could have been submitted as Ph.D. theses.

- 1560.** PATTANSHETTI, M.M., *Effectiveness of self-instructional Microteaching Courses in Improving College Teaching*, Ph.D. Edu, Kar. U., 1985

The objectives of the study were (i) to prepare a self-instructional microteaching course (SIMC) materials, (ii) to evaluate the effectiveness of the SIMC materials in improving college teaching, and (iii) to study the reactions of participant lecturers to the SIMC. It was hypothesised: (1) SIMC is effective in improving lecturing competence of college teachers in terms of the following lecturing skills taken together: (a) orientation

skill, (b) skill of explaining, (c) skill of stimulus variation, and (d) skill of achieving closure and each skill independently. (2) College teachers sustain lecturing competence in terms of the four skills taken together and each skill independently, strengthened by the SIMC even two months after the training.

Ten social science college teachers participated in the experiment. The Dharwad Lecture Rating Scale (DLRS) was prepared using a scientific procedure. It consisted of 19 instructional behaviours (covering four skills) to be rated on a 5-point scale. Its inter-rater reliability was found to be 0.76 ($n=20$) and convergent validity 0.74 ($n=20$). Another rating scale was also prepared with a view to collecting reactions of participant lecturers to the SIMC. It had 36 statements representing positive and negative reactions to the course as a whole and to different aspects of the course. A single group pretest and post-test design was used. The SIMC material was prepared mainly in the form of four handbooks—one on each skill. Each participant was provided with four handbooks and an audio-cassette containing model explanations and model microlectures. Participants completed activities in 45 days at the rate of two hours a day. The effectiveness of the course was tested by comparing pre-treatment scores with immediate post-treatment scores and immediate post-treatment scores with delayed post-treatment scores using t-test. Reactions of participants to the SIMC were analysed in terms of percentages.

The findings of the study were: 1. The SIMC was effective in improving lecturing competence of college teachers in terms of the four lecturing skills taken together and each skill independently. 2. College teachers sustained lecturing competence in terms of the four lecturing skills taken together and each independently, strengthened by the SIMC even two months after the training. 3. The participant lecturers had a favourable attitude towards SIMC.

- 1561.** PATTED, G.M., *Lecture Pattern of College Teaching—A Study in College Teaching*, Dept. of Education, Kar. U., 1984 (UGC financed)

The objectives of the study were (i) to find out the average duration of time out of one hour lecturing period used by college teachers for the seven major components of the lecturing process—information processing, soliciting, responding, reacting, giving directions, pausing, and providing scope for student participation, (ii) to identify specific behaviours under each major com-

ponent of the lecturing process for which college teachers showed preference in their lectures, and (iii) to compute certain indices with a view to understanding the nature and quality of college teaching in general.

An equivalent category observation system for describing and analysing college teaching in terms of 20 behaviours was developed. The inter-rater reliability of the system was found to be consistently above 0.80. Three hundred and forty-eight college teachers teaching humanities and social sciences in 40 colleges situated in the jurisdiction of the Karnatak University constituted the sample for the study. Each teacher was observed twice for 30 minutes duration. The observer listened carefully to the teacher or student talk, decided the category/code number that best represented the three-second segment of teacher/student behaviour and recorded it in the observation sheet. The category-wise frequencies relating to teacher and student classroom verbal behaviour were added up for all the teachers and they constituted raw data for analysis and computation of indices.

The findings of the study were: 1. Out of a lecturing period of one hour's duration, college teachers used 56 minutes and 3 seconds in information processing, 30 seconds in soliciting, 25 seconds in responding to student queries, nine seconds in reacting to students' answers or ideas, 51 seconds in giving directions to students, one minute and eleven seconds in the use of pause and 51 seconds for giving scope to student participation. 2. College teachers showed a preference for restricted and factual types of information processing, questioning and responding to student queries, routine ways of reacting to student ideas/answers and giving directions to students. 3. They used 'pausing' with and without a purpose and provided very little scope for student participation. 4. They predominantly exhibited direct teaching behaviour.

College teachers need orientation and training in respect of the lecturing skills of (1) expanded and evaluative information processing, (2) expanded and evaluative questioning, (3) reacting to student ideas at the rationalized level, (4) giving extended directions, and (5) encouraging student participation.

1562. PILLAI, J.K., *Instruction and Evaluation at the Postgraduate Level in Madurai Kamraj University—An Experiment*, Dept. of Education, MKU, 1984 (UGC financed)

The objectives of the study were (i) to make a study of

the teaching methods and evaluation procedures at the postgraduate level in Madurai Kamraj University colleges, and (ii) to investigate whether some micro-laboratory sessions could be held to convince the teachers to redefine the purpose of postgraduate education, of the need to vary methods to match their objectives and adopt new teaching evaluation techniques to enhance student learning.

The experiment was conducted in three phases using a 'single group' design. In the first phase, the objectives of higher education were analysed in terms of abilities to be developed among students. Elements of instruction and evaluation were analysed through observation. In the second phase, teachers were introduced to the broad principles of self-instructional materials and laboratory sessions. They were encouraged to self-assess, peer rate each other and to submit to evaluation by their students. In the third phase, self-learning modules were developed on skills of teaching and were distributed to teachers for self-study. The sample comprised 17 teachers from the disciplines of Tamil, English, economics, history and sociology. These teachers had not undergone any pedagogic orientation and had less than five years of teaching experience. The tools consisted of an observation schedule, a students impression pro-forma and self-instructional modules.

The major conclusions drawn from the study were: 1. Dominance of the examination made the students concentrate on a narrow range of lower objectives (recall). The students resorted to memory because of language difficulty. 2. Project work helped the students in fostering an enquiry approach. 3. University teachers realized that, at postgraduate level, students need to be helped to be verbally articulate, to write coherently, to think critically, to think independently, and work confidently on their own. 4. Teachers realized the need to improve the process of teaching-learning evaluation. 5. The teachers showed readiness to try out new techniques and methods in spite of various constraints. 6. Teachers opened out their classes to their colleagues and researchers for observation, assessment and feedback. 7. Teachers, students and observers agreed upon teaching behaviours which needed improvement. 8. Teachers were convinced about securing students' involvement and participation in the learning process. 9. Teachers introduced improvements in their lecturing, questioning and evaluation techniques. They found that student-centred, small group discussions were desirable exercises and students learnt more through interaction with peers.

- 1563.** PALLAI, J.K., and MOHAN, S., *Working of the Semester System—A Review*, Dept. of Education, MKU, 1986

The objective of the inquiry were (i) to find out the views of students and teachers regarding the semester system, teaching-learning techniques, evaluation procedures and the functioning of the system, and (ii) to study parents' opinion about the system as a whole.

The sample comprised 83 colleges of which 40 responded. In addition, the sample included 1260 teachers, 1225 students and 110 parents or citizens. A Semester Review Questionnaire developed by the investigators was the main tool used. The analysis consisted mainly in converting the frequency of responses into percentages.

The major findings were: 1. About 69 per cent of the teachers agreed that the courses of study were designed as self-contained units. 2. Seventy per cent of the men teachers and 81 per cent of the women teachers were of the opinion that the semester system had geared the students to a tight schedule. 3. About 75 per cent of the teachers said that 90 working days were ensured per semester. A large percentage suggested that uniform dates should be fixed for opening of colleges. 4. About 60 per cent of the teachers reported that adequate lecture hours were available to complete the course units. 5. More than eight per cent of the teachers agreed that the courses were effectively planned, schedules notified and followed closely. 6. The teachers used lectures, discussions, assignments and seminars as major instructional strategies. They used continuous assessment and assignments to help the students learn systematically. They felt that the ratio of 75:25 for external and internal assessment was adequate. They opined in favour of a non-detention policy. 7. A majority of the teachers were keen to ensure uniformity in awarding internal marks among the colleges and various subjects by converting raw scores into standard scores. 8. The majority of students (65 per cent) felt that the courses of study were well designed as self-contained units, and they geared them to a tight work schedule. 9. Seventy per cent of the students reported that there was effective planning of courses, schedules were notified in advance and followed closely. 10. About 50 per cent of the students felt that the teachers provided discussions, assignments and seminars more frequently than field work, project work, guided reading and debates. 11. Sixty-five per cent of the students felt that they were involved in the learning process, learnt more systematically, assumed definite

responsibility for their progress, got periodical feedback from the results of sessional tests to improve their learning and the semester system left them little time for frivolous activities. 12. Students wanted the class size to be not more than forty. They were satisfied with the existing ratio of external and internal assessment. They, however, were not in favour of too many tests. About 40 per cent of students doubted the reliability of external assessment and suspected subjectivity in internal assessment. 13. On the whole, 90 per cent of students felt that the semester system was a good system. 14. Almost all parents favoured continuing the semester system. According to them, the system resulted in regular work by their wards and periodical tests and feedback resulted in morale boosting and better learning.

- 1564.** PILLAY, G.S., *Nature of Researches Undertaken in Social Sciences and Diffusion of Findings*, Dept. of Education, MKU, 1986

The objectives of the investigation were (i) to estimate the projects taken up by the researchers of different disciplines of social sciences in the Madurai Kamaraj University area, and (ii) to study the nature of diffusion of research findings.

The sample included 450 teachers teaching postgraduate courses in social sciences either in the university or in the colleges with postgraduate courses in social sciences. The Institute of Correspondence Courses (ICC) also was included in the sample. Interview schedules and information pro-forma were the tools used for data collection.

The following findings were derived from the analysis of results: 1. The mean projects completed during the last five years by the faculty of the university, ICC colleges were 1.02, 0.44, and 0.36 respectively. 2. The mean projects progressing with the faculty of the university, ICC and colleges were 0.98, 0.61, and 0.24 respectively. 3. The colleges differed very much with respect to the research projects completed. In some colleges, in certain postgraduate departments, they had not taken up any project at all. 4. Among the university departments, the faculty of education and that of Gandhian thought had a mean completed project of two. It was followed by sociology and management studies with a mean completed project of 1.25 each. The least was 0.25 for library and information science. 5. In the Institute of Correspondence Courses, the discipline of geography had

the highest mean project of one, followed by history with a mean project of 0.75. 6. There were significant differences between the faculties of colleges, the university and the ICC with respect to projects completed and projects going on in social sciences. 7. Nearly 55 per cent of the research projects taken up were for getting degrees. 8. Faculties differed significantly in their purposes in taking up research projects. 9. For the college faculty the major purpose of taking up a research project was for getting an M.Phil or Ph.D. But for the university faculty, it was not so. 10. There was significant difference in the projects sponsored by the different agencies. UGC-sponsored projects were significantly more than others. 11. The projects taken up by different faculty members varied significantly with respect to their cost. 12. There was no significant difference in the time taken for completing the projects by different faculties. 13. Very few joint efforts were made in attacking problems of social science research. 14. Research findings were not disseminated in all cases. 15. There was significant difference in the diffusion of research information among the faculties of colleges, the university and ICC. 16. University faculties excelled the other groups in printing or cyclostyling the research reports and, thus, in disseminating the research findings. 17. Publishing of abstracts of the research reports was very popular among the university faculty, compared to the position among their counterparts in the ICC and college. 18. The different strategies of dissemination like submitting a report to the government, flashing the findings in newspapers, AIR, and Doordarshan, and making use of the research findings for writing articles, etc. were practised to a very limited level by the different faculty members under study. 19. With respect to the publication of books and articles other than research reports, the university faculty got significantly more mean publication of books and articles than the other two groups. 20. Heavy work-load, lack of library facilities and lack of encouragement from management were found to be the main reasons for the college faculty for not coming forward to take up projects. 21. Lack of validity of findings, insignificant problems studied, outdated problems analysed, etc. were the reasons for not taking initiative for publishing the reports. 22. Though interested in disseminating the research information, the attempts of the funding agencies were not sufficient for diffusion of research information to users.

1565. PORTIA, D.R., *The Structure and Functioning of the Academic Departments of an Indian University—A Case Study*, Ph.D. Edu., And. U., 1979

The objective of the study was to test the following hypotheses: (1) Neither the present university structure nor the academic departmental structure facilitates changing the objectives of the university. (2) The organization of academic departments which is based on the bureaucratic principles of hierarchy is causing tension in human relation among members of academic departments. 3. There is a conflict between the academic and administrative functions of the heads of departments. (4) The overlapping of functions of key persons of the university, namely, dean of the faculty and the principal of the college, is due to the fact that their functions are not defined in clear terms. (5) There are anomalies involved in the university structure due to the outmoded practices of statutory bodies like the academic council and board of studies. (6) Interdepartmental collaboration in the university is not for academic reasons but for nonacademic reasons.

The study was exploratory as well as empirical. It was exploratory in the sense that various documents concerning university functioning were studied. These documents included reports of various education commissions and Andhra University Acts and Statutes. It was empirical in the sense that data were collected from heads of department, lecturers, readers, professors and principals of colleges with the help of a questionnaire about the goals and functions of the university.

The findings of the study were: 1. There was general agreement among the respondents that there was disjunction between the university structure and the functions that the university was expected to perform. 2. The majority of faculty members were aware that the academic departmental structure was not suitable for the changing objectives of the university. 3. The younger faculty members, particularly those from science faculties, felt that they were not involved in decision making in the university. 4. The heads of department felt that all faculty members should be consulted in academic matters but not in administrative matters. 5. The heads of department felt that they were subjected to strict accountability within the rigid framework of rules which permitted little individual discretion. 6. The majority of faculty members expressed the views that heads of departments spent most of their time in administrative work and neglected academic work. 7. The heads of department expressed the view that they had difficulty in reconciling administrative duties with academic interests and that invariably it was academic work which suffered. 8. The respondents agreed that there was overlapping in the functions of deans of faculties and the principals of col-

leges. 9. A majority of heads of department felt that the existing practice of getting all academic issues pertaining to individual discipline ratified in the academic council after they were approved in the board of studies was not necessary. 10. There was no interdepartmental collaboration in using resources, both physical and human. The major constraints identified were fear of losing departmental autonomy, fear of others cutting into the resources of the department, and fear of being criticized by other departments.

1566. PRASADA RAO, Y.F.W., *Factors That Make a Lecture Effective at the College Level*, Ph.D. Edu., MSU, 1984

The objectives of the study were to find out (i) the factors that make a lecture effective in teaching arts, commerce and science subjects according to the teachers and students of arts, commerce and science faculties respectively, (ii) the dimensions of various factors that make a lecture effective in teaching arts, commerce and science subjects according to the teachers and students of arts, commerce and science faculties respectively, and (iii) the factors and dimensions of various factors in common that make a lecture effective in teaching arts, commerce and science subjects according to the teachers and students of arts, commerce and science faculties.

The study employed the survey method of research. The tools used were, (i) The Factor Categorization Schedule, and (ii) the Dimension Categorization Schedule, both developed by the investigator. The sample consisted of 366 teachers and 442 students of both sexes belonging to the arts, commerce and science faculties, randomly selected from various colleges of Andhra Pradesh. Analysis was based on the percentage of preference for the various factors and dimensions.

The major conclusions were: 1. The most important factors which made a lecture effective in teaching arts, commerce and science subjects, according to the teachers and students, were (i) teachers' preparation, (ii) securing students' attention, (iii) explaining subject matter clearly, and (iv) describing the subject-matter in detail. 2. The personal factors involved in an effective lecture according to all the teachers and students were. (i) ability on the part of the teacher to speak clearly, (ii) using simple language, and (iii) treating all students with equal friendliness. 3. Teachers and students expected an introduction to a lecture to be brief and related to the

previous topic. 4. Teachers and students believed that the use of questions was the best means of securing students' attention. 5. Students had a strong desire to express personal ideas and expected a free atmosphere in the classroom. 6. Students of all three faculties and teachers of the science faculty believed in creating a co-operative and competitive situation in the classroom. 7. Teachers and students of the three faculties did not seem to favour teachers presenting handouts at the beginning of the lecture. 8. Students and teachers of arts and commerce faculties did not like the use of teaching aids in the classroom.

The study implies that there should be a proper orientation programmes for college teachers on how to make their lectures effective and also on how to augment them by the use of teaching aids, demonstrations, etc.

1567. RAO, K.S., *Courts and University Education in India*, Ph. D. Law, Osm. U., 1982

The objectives of the study were (i) to indicate the trend of decisions of courts in the field of university education, (ii) to analyse difficulties and tribulations faced by courts in settling some disputes having a purely academic flavour, and (iii) to study the restraint shown by the courts in interfering in educational matters.

The study employed the case study approach, all the education-related cases that had gone to courts in India being studied, keeping in view the various articles of the Constitution and recommendations of education commissions. This was later followed by analysis in the light of certain principles evolved by courts like the principle of natural justice or hearing *ultra vires* and principles of estoppel.

The findings of the study were: 1. The court had shown a great restraint and unwillingness to interfere with the internal autonomy or internal working of educational institutions and also in purely academic matters. 2. The question of issuing writ to educational institutions was complex as these bodies did not have a common pattern. 3. Apart from the writ remedies, high courts were empowered to issue directions and orders, as educational bodies discharged highly specialized tasks on the basis of their experience and understanding of educational problems. 4. The courts had generally protected minority interests and their right to establish and administer educational institutions. Minority institutions, though established by minority communities did

not benefit only those communities. 5. The Constitution gave the minorities the right to maintain the individuality and distinct identity of their culture and language. 6. The study of a plethora of cases on minority rights indicated that the state could certainly make regulating measures to promote efficiency and excellence of educational standards. It was entitled to regulate conditions of employment of teachers and health and hygiene of students. 7. The state provided grants-in-aid to the universities, and hence could prescribe certain reasonable regulations. 8. An important aspect of university education was admission of students into educational institutions. The students had become legally and socially conscious in protecting their rights at the earliest opportunity. 9. The university and colleges had generally retained control over admission and exercised discretion in admitting students to a course. 10. The government usually laid down the policy of reservation and it was implemented by educational institutions. The universities were also entitled to prescribe certain reservations. 11. The important issues attracting the attention of courts had been reservation policy and criteria for determining backwardness. The courts had considered some objective conditions as relevant in adjudging backwardness. The criteria accepted by the courts had been caste and economic and social conditions. 12. The courts had been cautious regarding examinations and students discipline. They had treated these issues as purely internal to the universities. 13. The courts had accepted the need of treating student indiscipline cases on a special footing and generally had left the matter to university bodies.

1568. RAO, T.V., *Perception of College Environment, Work-values and Professional Aspirations of Students of a Medical College*, IIM, Ahmedabad, 1975 (ICSSR financed)

The main objective was to compare the perceptions of college environment, work-values and professional aspirations of students of a medical college. The hypothesis formulated was that medical colleges prepared students to be good medical students or doctors in a medical college but not to be doctors in a primary health centre.

A sample of 539 MBBS students of different semesters was studied through different phases of their studies with a view to comparing the changes which would

provide indirect evidence to the socializing effects of a college. Of these, 192 were drawn from the first year, 193 from the second year and 154 from the final year MBBS. The students of these three different years were compared in relation to their work-value patterns, professional aspirations and their perceptions of their campus climate. The research tools used were, (i) the physician's Work-value Scale developed and standardized by Rao and Pareek (1973) to assess ten work-values, (ii) a modified version of Anril and Free's (1963) Self-anchoring Technique of Measuring Hopes, Fears and Levels of Aspiration (iii) a Medical College Environment Inventory (MCEI) developed and standardized by Rao (1972) to measure student's perceptions of the medical college environment. The t-ratios were calculated for data analysis and drawing conclusions.

The major findings of the study were: 1. The work-values of students appeared to remain relatively unchanged in the first two years of their study, where the ranking of the ten values was more or less the same. 2. By the time they were nearing graduation some significant shifts seemed to be taking place. They laid less emphasis on a job where they could be of service to others. 3. A significant difference existed in relation to the economic values with the final year students who started valuing the financial aspects of their job much more. 4. Academic values had considerably gone down by the time they reached the final stage. 5. Preference for work in rural areas seemed to remain low from the beginning, with tendencies to decrease by the time they reached the final year. 6. Academic values had considerably gone down by the time they reached the final year and academic jobs became the least preferred. 7. The percentage of students desiring to go abroad had increased by about 3.4 per cent from the first MBBS to the final MBBS. 8. The desire to be known in the field was greater in first and second year students than among those in the final year. 9. The desire to set up private practice and status drive had increased from the first year to the final year. 10. Their achievement orientation in terms of accomplishing something high or remarkable had decreased over the years and so was their desire to work in rural areas. 11. Apprehensions appeared to be increasing from the first year to the later years. 12. The differences between the first year's and final year's rating of their professional present and future were statistically significant. 13. There was a general trend among the students to view the campus climate less favourably as they moved from the first year to the final year of their study.

- *1569. SACHDEV, P., *A Critical Study of Teaching in Higher Education in Bombay with special reference to Physics*, Ph.D., Edu., Bom., U., 1986

The major objectives of the study were, (i) to identify the teaching styles of teachers as described by themselves and to compare these with the way they were perceived by their students, (ii) to study teaching in higher education in Bombay, (iii) to evaluate teachers on seven criteria as perceived by students, viz., (a) commitment to teaching, (b) commitment to discipline, (c) presentation of content, (d) student-directedness, (e) academic climate in the class, (f) classroom procedure, and (g) personal attributes, (iii) to prepare a profile of teachers with each style with a view to describing their relative ratings on the seven subscales, (iv) to describe the college teachers with respect to attitudes to professional training, job satisfaction and research orientation, (v) to describe students on the basis of their self ratings, performance at college tests and reactions to independent study and assignments. The main hypothesis of the study was: There is no significant difference in mean ratings on the seven subscales by the students of teachers who possess different styles of teaching.

The study employed a descriptive research design, using surveys and observations. The population considered was the students who opted for physics at the B.Sc. level, the lecturers who taught physics at degree level, the heads of departments of physics and the principals of the colleges. A pre-pilot test was administered in one college and a pilot test was administered in six colleges which were randomly selected using multistage cluster sampling technique. In the pilot study, questionnaires were administered to 57 teachers of which only 32 questionnaires were returned, 284 students belonging to the I, II and III year of the degree level filled in the questionnaire. The final sample included ten colleges which were distributed over the four geographical zones of Greater Bombay, offering physics as one of the options at the degree level. The method of incidental sampling was used for the selection of the final sample. The final sample consisted of 424 students, 56 lecturers, nine principals and one vice principal from ten colleges out of 28 randomly selected in Greater Bombay. The tools used in the final study, all prepared by the investigator were: (i) the Faculty Questionnaire, (ii) the Student Questionnaire, (iii) the Rating Scale for Curriculum, (iv) the Rating Scale for Instruction, (v) an Interview Schedule for heads of department, and (vi) an Interview Schedule for principals of colleges. The data

were analysed using descriptive and inferential statistics.

The major findings and conclusions of the study were: 1. Students were fairly united in the way they perceived their teachers' instruction. 2. Many of the girls did not chose to continue further in an occupation related to physics. 3. Students of the third year and of the first year rated their eurrricula significantly higher than students of the second year. 4. Students with a lower level of qualification rated their curricula higher than those with a higher qualification level. 5. Students of different years perceived different methods as being effective in helping them to learn physics. Students from all the years perceived the small group methods as being effective for theory work and only second to practical work. 6. Students who joined physics for different reasons varied in their perception of the least effective methods of instruction. 7. The majority of all the students perceived their difficulties to be teacher centred. 8. The majority of the students felt that their teachers should be evaluated. 9. The majority of the students preferred the discovery-oriented style the most, and the control-oriented style the least. Girls preferred a content-oriented style over a sympathy-oriented one. The reverse was the preference of the boys. 10. Students with a higher qualification level preferred the discovery-oriented style. Students with a lower qualification level preferred the content or the sympathy-oriented style first. 11. Teachers perceptions of the evaluation systems were consistent. 12. Male teachers had significantly more publications to their credit than female teachers. 13. Male teachers' attitude to the profession was relatively more negative when compared with that of female teachers. 14. The role of the college of general education in the system of higher education was not well defined.

1570. SATHAPPAN, S., *A Study on the Relationships of Scientific Productivity of College Teachers to their Professional Attitudes, Perceived Organisational Characteristics, Manifest Needs and Anxiety*, Ph.D. Psy., Kar. U., 1984

Differentiating the term productivity from creativity, as performance judged in the context of organizational norms and expectations, as done in the industrial context, which gave the term productivity to science, it was suggested that the performance of scientists was to be rated in the normative manner against institutional ex-

expectations and yardsticks rather than as unique products'. Scientific productivity was then defined to include participation in research and discussion, production of research publications, participation in research competition and finally winning of awards. The study set the following hypotheses regarding relationship of productivity with other variables among college teachers: (1) The productive and non-productive groups differ significantly in their attitudes towards their profession. (2) The productive and non-productive groups differ significantly in their perceptions of organizational characteristics. (3) The productive and non-productive groups differ in their motivational need patterns, particularly with reference to the following needs: achievement, order, autonomy, affiliation, dominance, change, endurance, aggression and level of anxiety. (4) These characteristics interact with each other and distinct clusters would emerge differentiating the two groups. (5) Difference can emerge among the different categories of teachers like medical, engineering, science, humanities, etc.

The sample consisted of 160 college teachers drawn from medical, engineering, science and arts faculties of various colleges in Madras city. Using a ten-point scale of scientific productivity constructed for the purpose, the college teachers were classified as productive ($n=63$) and non-productive ($n=97$). A scale of attitude towards profession (with reliability coefficient of 0.498 and validity coefficient of 0.89) was developed. Indiresan's Organizational Atmosphere Scale, Edwards Personal Preference Scale, and the IPAT Anxiety Scale were the other tools employed. The tools were administered individually to 160 subjects comprising the sample. The types of analysis employed included analysis of mean differences through t-tests, correlation analysis, multiple regression analysis and cluster analysis.

The major findings were: 1. In general, the level of scientific productivity of college teachers appeared to be rather low. 2. The productive and non-productive groups did not differ on variables like professional attitudes and perceived organizational characteristics. They differed only in the need achievement with the former standing significantly higher. They did not differ on the level of anxiety. 3. Multiple regression analysis indicated that, while need-achievement was the only differentiating independent factor, the other variables in combination with need-achievement appeared to be significantly related to scientific productivity. 4. The four subject groups had significant multiple regression coefficient with different clusters of factors.

1571. SATHYAGIRIRAJAN, S., *Competency, Personality, Motivation and Profession Perception of College Teachers*, Ph.D. Edu., MKU, 1985

The main objective of the study was to find out the extent of relationship between competency of college teachers and teachers and their personality, motivation and profession perception.

A Teacher Competency Rating Scale developed by the investigator based on the Stanford Teacher Competency Appraisal and Teacher Rating Scale of San Jose College, a Self-Actualizing Person Inventory structured by the investigator, Cattell's 16 PF Questionnaire, Tuckman's Teacher Feedback Form and Patted's Teaching Profession Perception Scale were used to collect the required data from a stratified random sample of 300 college teachers in the Madurai Kamaraj University area. Hypotheses regarding the relationship between the selected variables and differences between more competent and less competent college teachers with reference to the variables were formulated and examined. Regression analysis was done using the selected variables that correlated significantly with the criterion variable, namely, teacher competency.

The main findings were: 1. Teacher competency was related to intelligence, emotional stability, conscientiousness, tendermindedness, trusted nature, placid nature, self-sufficiency and relaxedness factors of Cattell's 16PF Questionnaire. 2. It was significantly related to creativity, dynamism, organized demeanour and warmth and acceptance, self-actualization and profession perception of teachers. 3. The more competent teachers significantly differed from the less competent teachers in all the above variables. 4. Those variables that correlated significantly with teacher competence, inter-correlated with one another significantly.

1572. SHANTESHWAR, VEENA. *An Investigation into the Roles of English in Higher and Professional Education in Karnataka*, Ph.D. Eng., Kar. U., 1982

The study sought to identify, (i) the English language needs of the personnel belonging to different professional categories in the state and then to assess their actual level of proficiency in the performance of various English language tasks, (ii) to investigate the English language requirements of students who prepared of these professions, and (iii) to evaluate the capacity of the existing English language teaching programmes at the

post-secondary level and their adequacy in meeting the aforesaid English language tasks.

A representative sample of 60 subjects belonging to six major professions—medicine, engineering, law, banking, secondary schoolteachers and first/second division clerks was selected. The sample for the superiors of these professionals was ten which included Chief Medical Officers, Executive Engineers, District Judges, Bank Agents and Managers, Headmasters of high schools and Assistant Commissioners. The student sample consisted of 100 subjects pursuing professional and non-professional courses in seven different institutions. Forty of them had a rural background and 60 had urban background. The teacher sample consisted of 32 subject lecturers and 50 English-language lecturers of colleges. The instruments used were on the job observation, interview and administration of two sets of questionnaires, one for the professionals and the other for their professional superiors. The English language tasks emphasized were reading, oral and written communication, listening and comprehending. The subjects were asked to specify the frequency of their performance of each task on a four-point scale. Besides, their attitude towards English was also measured. The same English language tasks were presented to their superiors and they were asked to give their opinion about, (a) how many of these language tasks were required for the particular profession, and (b) how far should their employers be able to perform these particular tasks. Three separate field-tested questionnaires were administered to students, subject lecturers and English lecturers. Percentage analysis was undertaken.

The major findings were: 1. English was exclusively used for all types of written communication by 60 per cent of the doctors, 61 per cent of the engineers, 30 per cent of the lawyers, 80 per cent of the bank employees, 37 per cent of the high school teachers and 28 per cent of the clerks. 2. About 80 per cent of the doctors, 70 per cent of the lawyers and engineers, 66 per cent of the bank employees, 25 per cent of the teachers and 10 per cent of the clerks were required to speak English. 3. About 70 per cent of the doctors, 80 per cent of the lawyers, 75 per cent of the bank employees, 60 per cent of the high school teachers and 71 per cent of the clerks felt that the English courses offered at school and college were satisfactory. 4. About 80 per cent of the doctors and lawyers and 54 per cent of the engineers felt that English had a very important role to play while only 25 per cent of the teachers felt so. 5. It was found that the use of English by personnel belonging to various categories of jobs was largely determined by the nature of their par-

ticular job and that they had adequate English language proficiency. 6. A majority of students were not satisfied with the English courses offered to them at school and college levels. The students felt that the courses did not give them proficiency in reading, writing and speaking English and were of no use for their study of special subjects. 7. The subject teachers felt that their students required training in special skills not given importance by the English language teachers. 8. An analysis of English language teaching revealed that the courses did not impart to the students the essential language skills which they would need in order to perform a variety of tasks in their professions. Some of the causes were attributed to large classes, exclusive dependence on the lecture method, emphasis on examination and frequent experimentation with syllabi and, lastly, greater orientation towards English literature than towards English language skills.

1573. SHARMA, D.V., *Socio-psychological Differentials of Non-sportsmen and University-representing Sportsmen*, Ph.D. Phy. Edu., Pan. U., 1984

The objectives of the study were (i) to investigate the differentials of non-sportsmen and university-representing sportsmen on personality, self-concept, intelligence and socio-economic status, (ii) to investigate the socio-psychological differentials on non-sportsmen and university-representing sportsmen belonging to various sports groups, viz., basketball, cricket, football, hockey and volleyball, (iii) to find out differences in personality, self-concept, intelligence and socio-economic status, among different groups of university-representing sportsmen, viz., basketball, cricket, football, hockey and volleyball, and (iv) to investigate the factorial structure differentials underlying selected socio-psychological variables of non-sportsmen and university-representing sportsmen.

A sample of 538 male college students (282 university-representing sportsmen and 256 non-sportsmen) drawn from the states of Punjab, Haryana and the Union territory of Chandigarh, was taken. They were administered following tools: (i) An Indian Adaptation of the 16PF Questionnaire (Jalota and Kapoor 1970), (ii) the Deo Self-concept Scale (1971), (iii) the Tandon Group Test of General Mental Ability (1973), (iv) the Dev-Mohan Socio-Economic Status Scale (1971). The data so collected were analysed with the help of t-test and factor analysis.

The findings of the study were: 1. There were signifi-

cant differences on the factor of aggressiveness among non-sportsmen and university-representing sportsmen. This factor was common in sportsmen belonging to basketball, cricket, football and volleyball. 2. The personality factor of 'emotional stability' and 'experimenting' were observed in the personality profiles of university representing sportsmen, and groups of sportsmen belonging to cricket, football and hockey. 3. The personality factor of 'outgoing' emerged in the personality profiles of basketball, football and volleyball sportsmen. The factor 'controlled' appeared in the personality structure of football, hockey and volleyball sportsmen. 4. There were significant differences among non-sportsmen and university-representing sportsmen on the factors of 'less intelligent', 'conscientious', 'venturesome' and 'trusting'. 5. The least dominant factor differentiating university-representing sportsmen and non-sportsmen were 'happy-go-lucky', 'practical', 'shrewd', 'placid', and 'group-dependent'. The personality factors 'practicals', 'placid', and 'group dependent' emerged in the profiles of basketball sportsmen, and the personality factor 'happy-go-lucky' was present in the profiles of cricket and football players. 6. University-representing sportsmen possessed higher positive self-concept than the non-sportsmen. The same differences were seen among football and hockey sportsmen. No significant difference was found between non-sportsmen and sportsmen belonging to basketball, cricket and volleyball groups. The mean self-concept score of football sportsmen was highest, followed by hockey, volleyball, basketball and cricket sportsmen. 7. No significant differences were found between non-sportsmen and university-representing sportsmen on the variable of intelligence. 8. University-representing sportsmen and sportsmen in each of the five sports groups were consistently higher than the non-sportsmen, on the variable of socio-economic status. 9. Eight significant factors emerged in university-representing sportsmen, namely, socio-economic status, self-concept, adjustment *vs* anxiety, mental ability, independence *vs* subduedness, alert poise *vs* tenderminded, emotionality, introversion *vs* extraversion. 10. Seven factors were identified in non-sportsmen, namely, adjustment *vs* anxiety, professional status, extraversion *vs* introversion, subduedness *vs* independence, mental ability, socio-economic status, tenderminded emotionality *vs* alert poise.

*1574. SHARMA, G.D., *Enrolment in Higher Education—A Trend Analysis*, AIU, 1977

The objectives of the study were (i) to examine the problem particularly in its locational or regional aspects, (ii) to trace the factors responsible for the declining trend (iii) to examine the implications of such a trend, and (iv) to suggest possible measures to arrest the declining trend.

Data were collected from the UGC reports, Ministry of Education and Social Welfare, Government of India, and other secondary sources. Data were analysed quantitatively using regression analysis and trend analysis techniques. Besides, data were analysed qualitatively in terms of graphic presentation and description of facts.

The findings of the study were: 1. There have been declining rates of growth in enrolment in higher education during 1970–75. Negative rates of growth were observed in some faculties such as science, engineering and technology, arts, medicine and agriculture. However, there was a higher rate of growth of enrolment from 1960 to 1970. 2. Inter-state variations were marked with regard to rates of growth of enrolment. 3. Among the factors considered, the expenditure on higher education was an important determining variable in the rate of growth in enrolment. 4. Government policy, new developments in education such as correspondence courses, permitting non-collegiates to appear for degree examinations and the new 10+2+3 system of education diverted students from regular colleges and thus affected the enrolment to some extent. 5. The declining trend in rate of growth affected the demand for educated people in the education industry. 6. Declining trends in the rate of growth of enrolment in the case of colleges in urban areas helped in the improvement of the teacher : student ratio. But in the case of colleges in rural areas with small enrolment functioning decline in enrolment adversely affected the economic functioning of these colleges. 7. The faster rate of growth in the number of institutions of higher education and enrolment during 1950–70 had resulted in deterioration in the quality of higher education, establishment of a large number of colleges with small enrolment termed under-populated colleges, and a larger supply of graduate degree holders than the economy could absorb.

*1575. SHARMA, M.P., *Organizational Structure and Climate in Universities of Rajasthan*, Ph. D. Edu., M.Sukh.U., 1985

The main objectives of the research were (i) to study the organizational structure of universities in terms of developmental personality, departmental organization and

committee structure, i.e. authorities and officers, communication channels and autonomy and academic freedom in functioning, and (ii) to study the organizational climate in universities in terms of general social climate and inter-personal relationships between heads of departments and teachers and between teachers and teachers. The ultimate aim of the research was to suggest ways and means of improvement in the organizational structure and climate in the universities of Rajasthan.

The necessary data were collected from all the three universities located in the state. To study the organizational structure and climate of these universities, a descriptive survey method, along with the case study approach was used. For studying organizational climate of the university departments, an adapted version of OCDQ (Organizational Climate Description Questionnaire) developed by Halpin & Croff, was used. Besides, an interview schedule and an opinionnaire were developed to collect necessary data regarding structure and climate. A General Atmosphere Recording Form (GARF) was also developed and used as a subsidiary tool. University Acts, reports and minutes were also consulted to collect necessary data.

The main findings of the research were: 1. University education in Rajasthan was of recent origin. It came into being in the post-independence era. 2. The number of universities in the state was quite small considering the actual needs of the state. There was only one university in the state which was of an affiliating nature, it had become unmanageable. 3. Distribution of universities in the state was also not proper and called for reorganization on a regional basis. 4. All the universities in the state had identical traditional structure, i.e., an administrator and administration-oriented structure, un conducive to autonomy and academic freedom. 5. There appeared to be a tendency towards centralization in the entire structure of the universities. 6. University departments had mainly a 'closed' or 'intermediate' type of climate, except a very few with 'open' type climate. 7. The morale of the teachers was found to be low.

1576. SHARMA, P. *Leisure-time Activities of College Students of Delhi—a Sociological Study*, Ph.D. Soc. Sc., JNU, 1983

The objectives of the study were (i) to investigate the leisure time activities of college students of Delhi University, and (ii) to explore the significance of the role of leisure in students life and its influence on their values.

Three colleges—one boys, one girls and one

educational—were selected for study. A sample of 514 students (301 boys and 213 girls) was drawn from these colleges by applying the multi-stage stratified systematic sampling technique to obtain a fairly representative sample of the student community. Observation and interview techniques were used throughout the first and second intervals of the field phase and the main part of the data was collected in the second interval by administering a pre-coded and pre-tested questionnaire for the purpose of limiting the whole gamut of responses to specific alternatives provided for each set of questions. Percentages were worked out and the chi-square test was used to determine the significance of the leisure-time activities of the students.

The major findings were: 1. A majority of students viewed leisure-time in terms of the time in which they were free to 'do as you please'. 2. The non-participation rate in college-sponsored activities was as high as 75 to 85 per cent. 3. Students' participation rate in legitimate leisure activities such as watching movies, going to cafes, playing games, reading and visiting was as high as 90 per cent whereas the other legitimate activities such as relaxing with music, staying home or driving around were not popular. 4. The non-participation rate in different tabooed pleasures was as high as 40 to 96 per cent. 5. By and large, the most popular legitimate leisure activities had equal influence on all students, irrespective of variation of sex, institutional factors and socio-economic background. 6. The variables of sex (this includes not only male/female but the type of college as colleges basically reflect the sex-wise composition) exerted a significant influence on all types of leisure choices of students—whether extracurricular, legitimate or tabooed to varying extents. 7. Among the institutional variables a course of study exerted a minor influence in the leisure choices of college students. 8. The year of study significantly influenced students' participation in forbidden (tabooed) activities with the participation reaching its peak among the second year students as compared to the first and third year students. 9. The residence pattern exerted a strong influence on all types of leisure choices. 10. The type of family did influence students' cocurricular and tabooed choices, though it hardly exerted any influence on their legitimate leisure choices. 11. Father's education, occupation and income exerted a significant influence on the students' extracurricular choices.

1577. SHARMA, R. *Sub-culture of College Students as a Function of their Adjustment, Values, Academic Motivation and Attitudes*, Ph.D. Edu., Mee. U., 1985

The objectives were (i) to measure and compare different types of sub-cultures, (ii) to find out different types of sub-cultures of college students of different faculties, (iii) to find out how far the adjustment of students was related to their sub-culture, (iv) to find out how far values were related to the sub-cultures of college students, (v) to find out how the academic motivation of college students was related to different types of sub-cultures, and (vi) to find out the extent to which different types of attitudes were related to each type of sub-culture.

The sample comprised 796 male students of five postgraduate colleges of Meerut University, from arts, science and commerce faculties. A Personal Value Questionnaire developed by Sherry and Verma was used to measure values. Adjustment was measured with the help of the Adjustment Inventory for College students developed by Sinha and Singh. The Academic Motivation Inventory for College Student, developed by Srivastava was used for measuring academic motivation. A College Student Sub-culture Questionnaire and College Student Attitude Scale were developed by the investigator. The split half reliability ranged from 0.63 to 0.71 and test-retest reliability from 0.68 to 0.77 for the College Student Sub-culture Questionnaire. The test-retest reliability coefficients for the College Students Attitude Scale ranged from 0.68 to 0.71. The data were analysed with the help of chi-square and analysis of variance followed by t-test.

The findings were: 1. College students possessed different types of sub-cultures. 2. Academic and vocational sub-cultural groups differed significantly. 3. The collegiate sub-culture was not found to be different from the vocational sub-culture. 4. The collegiate students differed from non-conformist students. 5. The students possessing vocational sub-culture differed from the non-conformist students. 6. The students of different faculties differed significantly as regards their types of sub-cultures. 7. The emotional, educational and total adjustment of students determined their academic sub-culture. Health and social and emotional dimensions of adjustment were significantly correlated with collegiate sub-culture. Social adjustment affected vocational sub-cultures. 8. Religious, aesthetic and knowledge values affected the academic sub-culture. Collegiate sub-culture was affected only by social value. Economic and hedonistic values affected the vocational sub-culture. Economic, power, family prestige, and health values were determinants of non-conformist sub-cultures. 9. Academic motivation was found to be a significant factor in developing the academic sub-culture of college students while it did not influence other sub-cultures.

10. The attitude of college students towards teachers and parents, discipline, religion and god were responsible for developing academic sub-culture. The collegiate sub-culture was affected by only the attitude towards the college union. Vocational sub-culture was not affected by any type of attitude. The attitudes of non-conformist students towards different dimensions were negatively related.

1578. SINGH, NARENDRA PRATAP. *Frustration amongst Youth (A Study of the Colleges of Faizabad Division)*, Ph.D. Edu., Avadh U., 1986

The objectives of this investigation were (i) to study the nature and extent of frustration among college youth, (ii) to study the level of frustration among college youth in relation to various socio-economic levels, (iii) to study the degree of sense of responsibility among the college students of arts, science and commerce streams, (iv) to compare the mean responsibility scores of the students of high and low frustration groups, (v) to see the relationship between scores of frustration and socio-economic status with the sense of responsibility, and (vi) to test the hypotheses of frustration in relation to socio-economics status and the sense of responsibility.

The research was a survey type of study. The sample of the study consisted of 400 male students selected by employing the stratified random sampling technique in session 1984-85 from part one classes of the B.A. (300), B.Sc. (70), and B.Com. (30) students of six affiliated colleges of Avadh University situated in urban areas. The tools of the study were Nairashya Mapa (frustration test) by Chauhan and Tiwari (1972); Scale of Sense of Responsibility by Pandey and Upadhaya; and a Personal Information Sheet prepared by the investigator himself. The collected data were tabulated and analysed using suitable statistical techniques.

The findings of the study were: 1. The average frustration scores of students of all the three academic streams were found to be high. Most of the students appeared to be lying above the central point of the scale. 2. The highest mean frustration score was of students of the arts group and the lowest was for the science group. The differences in mean frustration scores between arts and science groups was significant. 3. All the three academic groups had average SES but the students of the science group were in a better position. 4. Students belonging to low SES were comparatively more frustrated. 5. The distribution of scores on the test of sense of re-

sponsibility was normal. It was highest for the science group and lowest for the arts group, and the difference was significant at .01 level. 6. The mean aggression score of the science group was lowest while it was highest for the arts group. 7. The tendency of showing resignation behaviour was greater in the arts group than in the science group. 8. The youths of the commerce group were found more regressive than the rest of the groups. It was lowest for the science group. 9. As for a fixative tendency in behaviour concerns the youths of the science group were found to possess high potential. 10. A High degree of responsibility was noted among youths of the low frustration group, but the picture deviated for the commerce group. 11. A negative but significant correlation exists between frustration and sense of responsibility scores. 12. SES and the individual's sense of responsibility were positively but insignificantly correlated. 13. A negative but highly significant correlation between the SES scores and the level of frustration was found.

1579. THOTTAM, GEORGE, *An Evaluation of the System of the Mass Communication Education in Indian Universities with a view to Propose a Four-tier Infrastructure*, Ph.D. Edu., Bom.U., 1983

The objectives of the study were (i) to assess the need for formal university-based education in mass communication, (ii) to measure the response of the Indian mass media towards the academic programmes being offered by Indian universities, (iii) to assess the rate of growth of mass communication education in Indian universities, (iv) to evaluate the objectives, content and achievement level of these programmes, (v) to suggest methods for streamlining and improving the programmes, (vi) to propose a four-tier model which would serve as an infrastructure, and (vii) to suggest curricular models for each of the four levels, for reference or possible adoption.

The study employed a descriptive research design and used analytical and comparative methods. The try-out test was administered to a sample of six universities which conducted mass communication courses. The final data were collected from 27 universities which conducted mass communication courses. Tools employed in this study were questionnaires for heads of departments and editors of newspapers, and interview schedules for heads of departments, teachers, students, leading media professionals and communication educa-

tors. The data were analysed by using simple percentages.

Some of the major findings of the study were: 1. There was no infrastructure for mass communication education in India. 2. The universities were the best training ground for mass communicators in India. 3. The non-university institutions involved in teaching and training in mass communication did not produce significant results. 4. The universities tended to include national needs in their goals and imparted more service ideals than private institutes. 5. Degrees and diplomas from universities enjoyed greater prestige and credibility in Indian society. 6. The universities could afford the high cost of mass communication training and provide technical facilities which the private institutes with limited resources could not do. 7. There had been a rapid increase in the number of departments of journalism and mass communication since 1970. 8. There was need for the standardization of basic elements like the duration, curriculum content, minimum staff and physical facilities. 9. There was no inservice education to improve expertise and skills of the staff. 10. A majority of the teachers and heads of departments did not have the necessary academic qualifications of professionals experience to teach mass communication effectively. 11. The departments did not have enough physical space for classrooms, offices, and libraries. 12. Although many departments taught mass communication research as a required course of their programme, departments of mass communication were not involved in any research activity. 13. The relationship between the media industry and the departments of mass communication was far from cordial. 14. The 40-year history of journalism and mass communication education in India showed that there had been very little innovation.

1580. TRIPATHI, S.L., *Adjustment Problems of Undergraduates of Varanasi Division*, Ph.D. Edu., Gor. U., 1981

The study was conducted to investigate the adjustment problems of undergraduate students of the Varanasi region, in relation to the socio-economic and intelligence levels of adjusted male and female students. The objectives were (i) to study the adjustment problems of undergraduates, (ii) to make a comparative study of the adjustment problems of male and female students belonging to different socio-economic, intelligence, locality, and adjustment levels, (iii) to determine the degree

of relationship between intelligence, adjustment and socio-economic background of the students, and (iv) to study the response of highly adjusted and maladjusted students regarding educational facilities like library, laboratories, books, etc. available at the college. The hypotheses were: (1) There is no difference in the adjustment scores of the students belonging to different groups in the main adjustment areas. (2) Intelligence and socio-economic levels have no relation with adjustment.

Tools used were, (i) a check-list for adjustment problem, (ii) a Socio-economic Status Scale, (iii) an interview schedule (vi) the Test of General Mental Ability by MC Joshi, (v) Vyaktitva Parikshan Prashnavali, and (vi) the Adjustment Inventory by Saxena. The sample consisted of 400 students (310 boys and 90 girls) from Varanasi division in U. P. The percentage of responses to the various adjustment areas of the check list was calculated. Product-moment correlation was used to determine the correlation between adjustment, intelligence and socio-economic status of students. The critical ratio was calculated to check the significance of differences between the mean scores of various groups in the above test and inventories.

The following conclusions were drawn: 1. In all 40 per cent of the boys faced college environmental problems, 50 per cent faced economic problems, and 40 per cent could not develop amicable relation with their classmates. 2. The problems of 53 per cent of girls concerned spending leisure time; 47 per cent were about lack of educational environment in the college. 3. About 53 per cent of the urban and 42 per cent of the rural students faced difficulties in their adjustment with the educational environment. 4. Girls were comparatively more adjusted to the home area. Highly adjusted students secured better points on the intelligence test. Urban boys and girls were superior, in this respect, to residents of rural areas. 5. Adjusted students had comparatively better socio-economic background. 6. Girls secured better points on the socio-economic status scale. 7. Intelligence and adjustment were mutually dependent. 8. Maladjusted students faced difficulty in maintaining domestic adjustment, economic crisis, educational environment, leisure-time activities, etc. However, girls faced less difficulty in adjusting to these situations. 9. The hypotheses were not supported by the obtained data.

1581. UMADEVI, S., *Organizational Goal, Organizational Climate and Faculty Performance Assessment—A Case Study of Andhra University*, Ph.D. Soc., And. U., 1983

The objectives of the study were (i) to study the organizational climate and measure it as per the faculty performance, and (ii) to find out the relationship between faculty performance and two climates measured by indirect and alternative ways.

The sample for the study consisted of 80 teachers of various categories, viz., professors (N=20), readers (N=20) and lecturers (N=40). The data were collected with the help of questionnaire consisting of three parts. Part one was related to background information of the university faculty and indicators of academic performance; the second part consisted of items designed to measure perceived importance and perceived attainment of university goals, and part three comprised a small set of items designed to measure the climate phenomenon directly.

The findings of the study were: 1. There was consensus over the goals of providing extension courses for part-time students and providing consultancy and guidance. 2. The faculties perceived skill goals even more important than the teaching and research goals. The faculties perceived that university goals were rational, realistic and highly professional. Further there was no significant difference in the perception of goals among the three faculty categories. 3. Regarding attainment of university goals, it was found that perceived attainment had never come close to perceived importance for any of the research and teaching goals. A consistent goals failure was reported and this was more prominent in research goals than in teaching goals. 4. With regard to extension and other social functions it was found that there were considerable goal gaps. Their consistent goal failures, faculty thought, led to the low climate of the university organization. 5. The important factors to reckon with in the analysis of university organization were identified as university management on the one hand and the student community on the other. 6. There was no relationship between the age of the faculty members and perception of university climate. 7. The climate evaluation of arts faculty teachers was significantly different and lower than that of the science and technology group. 8. The goal attainment failure in Andhra University was high and widespread in the areas related to research and promotions. 9. The performance profile of the university faculty revealed that there were

significant differences between readers and lecturers with respect to journal-article publication. but these differences were not significant between arts and science groups. Further, the engineering group had the lowest performance with respect to journal-article publication. 10. Age of the faculty members was found to be the promoter of academic output, academic attainment, and academic affiliations and organizations. 11. Multiple correlation revealed that it was the age of the respondent and not the global university climate which determined the performance of the faculty members. 12. The climate factor of the university had less to do with faculty performance and more to do with faculty satisfaction.

- 1582.** VERMA, B.K., *Politics of Pressure Group in Higher Education in Bihar: A Study of the Role of the Federation of University (Service) Teachers' Associations of Bihar*, Ph.D. Pol.Sc., Bhagalpur U., 1985

The study proposed mainly to analyse the role of the Federation of University (Service) Teachers' Associations of Bihar (FUSTAB) as a pressure group in the field of higher education, its contribution and relevance.

An in-depth, descriptive-analytical study was made. Both primary and secondary sources were used. Office bearers of FUSTAB were interviewed through an interview schedule. FUSTAB's role from 1971 till 1980 was studied.

Some of the major findings were: 1. In spite of some limitations, the achievements of FUSTAB had been quite considerable, particularly about betterment of service conditions of teachers, revision and implementation of pay scales, promotion of teachers, providing medical benefits, work for temporary medical benefits, and work for temporary teachers and demonstrators. 2. The strategy and tactics adopted by FUSTAB to achieve its objectives had been quite reasonable. 3. As a pressure group in higher education in Bihar, FUSTAB's working had a positive approach for its qualitative improvement. 4. Its contribution had been substantial in higher learning. The role of FUSTAB had, so far, positively contributed to higher education in Bihar. But its efforts as a pressure group towards influencing and giving a desired direction to state government's educational policies regarding universities had little effect. 5. Most of its demands relating to autonomy and internal democracy of the universities had very limited impact on government. 6. The existence of factions in

FUSTAB affected its functioning to some extent.

- 1583.** XAVIER, G. FRANCIS., *A Study of the Attitudes of College Students towards Self-improvement*, Ph.D. Edu., Kar. U., 1987

The study attempted to investigate attitudes towards self-improvement which comprised physical, mental, emotional socio-economic, vocational and spiritual/moral aspects. Nine questions inquiring into differences in terms of attitudes towards self-improvement with respect to, (i) sex, (ii) different religions, (iii) different age levels, (iv) different achievement levels, (v) different classes (educational), (vi) rural/urban status, (vii) different parental occupations, (viii) parental educational levels, and (ix) parental annual income, among college students were raised and accordingly nine null hypotheses were formed.

An attitude scale touching the above aspects of self-improvement was specially constructed. The sample at this stage consisted of 215 persons who acted as judges for making value judgements following Thurstone's method of Equal Appearing Intervals. The final scale consisted of ten statements with score values ranging from 0 to 10 on each of the aspects of self-improvement. The main sample of the study consisted of 1051 college-going students from 28 institutions altogether. Construct validity of the scale was inferred from the mean scale scores obtained from a sample of 1051 college-going students belonging to I, II, and III class levels of achievement. The validity coefficient was found to be 0.67 with Aaron's Attitude Scale on modernization using 46 students of University Agricultural Sciences, Bangalore, as a sample. Test-retest reliability was established to be 0.75 using a sample of 36 University Agricultural Sciences students. The analysis of variance was presented in two ways, viz., first with respect to each of the seven attributes of self-improvement, comparing levels/types in each of the nine variables of attitudes, and next with respect to each variable of attitude comparing levels or types within each on all attributes of self-improvement. The correlational analysis was based on a table of correlations between variables and attributes of self-improvement. Step-wise regression analysis was used to explain an attitude by its determining variables. Finally, a principal component analysis revealed dominant factors that contributed to self-improvement.

Major findings of the study were: 1. Female students

secured higher scores on their attitudes toward self-improvement than male students. 2. Religion had a marked influence on the attitudes of students toward self-improvement. 3. Academic achievements positively correlated with attitudes toward self-improvement. 4. The scores obtained by younger students (15–20) studying in PUC were higher than those of elder students pursuing degree, postgraduate and professional courses. 5. Urban students showed an edge over rural students in their attitudes toward self-improvement. 6. Parental education had greater influence in developing positive attitudes toward self-improvement than occupation and annual income of parents. 7. Students showed a marked preference for vocational, physical and socio-economic improvements and negative preference for mental, moral and emotional improvements.

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