

Guidance and Counselling

A Trend Report

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INTRODUCTION

Influenced by the major forces of increased knowledge of the psychology of personality, educational and occupational diversity, social concern over problems, increased division of labour and the growth of technology, ideological interpretations of democracy, humanitarianism and reform, the theoretical frame of guidance, if viewed in the historical perspective, has undergone conspicuous changes in its rationale and implications as characterised by various models, namely, the Parsonian Model, Guidance as Identical with Education, Guidance as Distribution and Adjustment, Guidance as a Clinical Process, Guidance as Decision Making, Guidance as an Eclectic System, Guidance as a Constellation of Services, Developmental Guidance, Guidance as the Science of Purposeful Action, Guidance as Social Reconstruction, and Guidance as Personal Development.

Most reviews on guidance and counselling in India contain the embarrassing recognition that the prevalent guidance practices are primitive and do not, in any way, reflect commitment to counselling as interpreted by various theoretical formulations listed above.

Whereas the beginning of guidance goes back to the early 1900's in the U.S.A. with the Parsonian Model, its emergence on the Indian scene was noted with a programme to carry out research on testing and vocational guidance by the section of Applied Psychology of Calcutta University in 1938. Contribution to its extension was the founding of a private Vocational Guidance Bureau in Bombay in 1941 which led to the establishment of the Parsi Panchayat Vocational Guidance Bureau in 1947. The first State Bureau was established in 1947 by U.P. Government in Allahabad. Another important milestone in the guidance movement was the setting up of the Central Bureau of Educational and Vocational Guidance

(CBEVG) by the Ministry of Education, Government of India in 1954, which was merged with NCERT later on. During the early fifties Vocational Guidance Bureaux were opened in several states for service to pupils and for training and research. Director General of Resettlement and Employment (DGRE) also set up a unit for dissemination of occupational information. During the Second Five Year Plan period youth employment offices were set up and attached to the employment exchanges for helping school leavers. On most university campuses the most visible site of counselling is the counselling centre, office or bureau which provides employment information to needy students. The development of school and college counselling appears to be one application of psychology to education. At present only thirteen percent of the secondary schools have guidance services. Overt interest in and commitment to guidance and counselling vary from state to state. Scientific attention to problems, programmes, social alternatives, educational and occupational diversity is given scantily, if any, in a concerted manner.

The NCERT, the State Bureaux and some universities run courses for training guidance personnel at various levels. During the past quarter of a century great interest has been shown in guidance activities by the Ministry of Education, State Governments, Employment Exchanges, the NCERT, the UGC and various other private agencies. Financial assistance through them has been coming to university and college teachers and researchers for conducting research work on projects related to guidance and counselling. Increased awareness is manifested by the publication of a number of research journals and that of guidance information. Chief among them are Journal of Educational and Vocational Guidance (Quarterly) published by the All India Educational and Vocational Guidance Association founded in 1956 and affiliated with the International Guidance

Association; Guidance Review (Quarterly) by the Central Bureau of Educational and Vocational Guidance; Journal of Guidance and Personnel (bi-annual) by the Institute of Vocational Guidance and Selection, Government of Maharashtra; Guidance Bulletin (Quarterly) by the Bureau of Educational and Vocational Guidance, Government of Andhra Pradesh; Guidance Newsletter (bi-monthly) by the State Bureau of Educational and Vocational Guidance, Bangalore; Guidance Information by the State Bureau of Educational and Vocational Guidance, Cuttack; Bureau Bulletin on School Guidance Services (monthly) by the Educational and Vocational Guidance Bureau, Trivandrum; and Guidance Periodical by the Bureau of Psychology, Allahabad. Apart from these, the extension services departments attached to colleges of education in each state are also contributing useful material to educational guidance.

Research on guidance and counselling is being done in most universities at the Masters Degree level as also at the Ph.D. level by the researchers in both the departments of psychology and education. Attempts, in the following review are, however, restricted to the Ph.D. researches and other projects financed by various agencies with a view to bringing together the available research findings, suggesting gaps and priorities.

RESEARCH ON GUIDANCE AND COUNSELLING IN INDIA

Of the 65 research studies reviewed herein, 44 were conducted at various universities for supplicating towards Ph.D., 9 projects were financed by the NCERT, 4 by the UGC, one by the Ministry of Education, 4 by universities and institutes, 2 by bureaux and one by ICSSR. Of the 44 Ph.D. projects, 21 were submitted for research degree in education, 19 in psychology, 2 in sociology and one each in home science and philosophy. The split of these studies demonstrates considerable interest in guidance by various agencies and various disciplines.

Any sophisticated review of the literature on guidance will fail to classify research studies under clear-cut strands; yet they seem to be roughly related to the following broad areas :

- i) Exceptional Children
- ii) Needs and Problems of Children
- iii) Vocational Preferences and Vocational Maturity
- iv) Student Appraisal
- v) Study Habits

- vi) Appraisals of Counselling, Follow-up and School Climates

EXCEPTIONAL CHILDREN

Advani (1965) studied educational and psychological problems of the blind children in the age group 7 to 21 years with a view to furthering research and progress in the field. The attitudes of 500 parents of blind children towards visually handicapped children, attitudes of 140 blind children towards parents and siblings, attitudes of heads of institutions for the blind were studied with the help of different questionnaires. Twenty homes were selected to observe children's adjustment. As many as 580 children were taken from schools for the blind in Maharashtra, Gujarat, U.P. and Delhi for personal interview with them.

Bhatt (1966) identified the gifted children by employing inexpensive procedures (IQ scores, achievement scores, teachers' observation and academic record) and studied their personality traits by employing a list of 39 traits validated against the criteria of known groups and contrasted groups and for which retest reliability was also ascertained. Identification of the gifted adolescents was also accomplished by Deo (1969) by using verbal and nonverbal tests. The gifted and the non-gifted groups of adolescents were studied for differences on the self-concept inventory, the Bernreuter's Personality Inventory, the Bell's Adjustment Inventory, and questionnaire for home and school background. Walia (1973) too, studied the self-concept of gifted adolescents. A self-concept inventory for measuring perceived, ideal and real self-concepts was standardised and comparisons were made between the gifted and non-gifted groups of adolescents. Shah (1969) conducted a survey of the superior children in the state of Gujarat in respect of socio-economic status, occupational interest and anthropometric characteristics. The sample included 356 pupils securing more than 70 percent marks in the S.S.C. Examination. Comparisons were made between superior pupils and average pupils, and superior pupils and superior adults numbering 33.

A survey of the mentally subnormal children was carried out by St. Xavier's Institute of Education in 1969. The sample of 4228 cases was drawn from clinics, hospitals, schools for subnormals and private sources. Again, from ordinary schools a sample of 2790 rated as subnormals by the teachers was also taken. In all, the study detected 4931 subnormal children in the age range of three to eighteen years. Varma (1968) investigated frustration and maladjustment in retarded school adolescents by using the

Jalota's General Mental Ability Test, the Asthana's Adjustment Inventory and a questionnaire.

NEEDS AND PROBLEMS OF CHILDREN

Muralidharan (1961) conducted a basic general survey of behaviour disorders prevalent in children of the pre-school and early school age; studied the relationship between behaviour disorders and certain determinants of behaviour; and also studied role of material adjustment, children's intelligence and ethical discrimination in the development of behaviour disorders in two extreme groups of well-adjusted and maladjusted children. A locally developed inventory, personal data sheet, parent adjustment inventory, intelligence tests and ethical discrimination test were used for data collection. Mulay (1971) conducted a study of needs and problems of adolescents on a sample of 1583 boys and 369 girls from rural and urban areas of eight districts in Vidarbha region of Maharashtra State by using the Kuppaswamy's Socio-Economic Status Scale, an inventory on problems of adolescents, an inventory of study habits and attitudes, and the Murray Needs Test.

Seth (1970) conducted a sociological study of 500 female teenagers of Lucknow city with a view to identifying their adjustment problems related to home, school, sex, personal, social and vocational adjustments. Phatak and others (1972) studied adjustment to nursery schools through shifts in behaviour mainly to identify the pattern of adjustment process over a period of time on a sample of sixteen boys and eight girls with the mean age of 2.76 years. Percentages and Cochran's Q test were applied to analyse the data based on three observations of children during three significant periods of schooling. Phatak (1973) undertook a study again, to identify problems of normal school-going boys of age 7 through 10 years. The information as to the problems of boys was collected from parents, teachers and boys themselves using three different questionnaires.

Pereira (1974) made an attempt to examine maladjusted and well adjusted groups of preadolescents with respect to intelligence, scholastic achievement, needs, anxiety and self-concept. The data were collected from a sample drawn from VII and VIII grade pupils of Mangalore city by using the Mooney Problem Checklist, the Raven's Standard Progressive Matrices, the Taylor's Manifest Anxiety Scale, the Self-concept Rating Scale, scholastic achievement tests and verbal projective technique.

Mehta (1969) investigated into the behavioural problems of 150 problem children of age group 5-12

years by using the Bhatia's Battery of Performance Test of Intelligence, the Saxena's Adjustment Inventory and the case history technique. Alvares (1961) conducted a study on 100 problem children by interviewing parents and children and by making other information available through psychologists and psychiatrists.

VOCATIONAL PREFERENCES AND VOCATIONAL MATURITY

Syed (1967) made an effort to assess the relative strengths and importance of various factors influencing the occupational choice of a sample of 275 doctors, engineers, lawyers and teachers working in the districts of Aligarh and Agra. The data were collected with the help of a questionnaire and analysed statistically by chi-square technique. Singh (1969) examined the psychological meaning of occupational titles empirically. An instrument named as Occupational Differential (OD) was developed and administered to 324 boys of standard X from and around Lucknow and analyses of data were done by using factorial analysis and analysis of variance. Grewal (1971) studied educational choices and vocational preferences of secondary school students in relation to environmental process variables. Comparisons were made between different groups of students offering science, agriculture, humanities, home science and commerce as electives. Vocational environment scales, vocational preference inventory, educational vocational plans questionnaire and the Joshi's General Mental Ability Test were used for data collection. Gaur (1973) studied the factors affecting the occupational aspirations of higher secondary school students of Delhi. The sample consisted of 202 boys and 98 girls of class X drawn on the basis of quota sampling. The Cattell's Culture Fair Intelligence Test, the Socio-Economic Status Scale by Jalota and others, the Occupational Aspiration Scale adapted from Haller and Miller Scale, the High School Personality Inventory and the Organisational Climate Description Questionnaire were used for data collection. Analyses followed methods of correlation, multiple regression and ANOVA.

Parlikar (1973) investigated into the vocational maturity of high school students. The sample consisted of 600 high school students selected randomly from grades VIII through XI from the city of Baroda. Tools for measuring vocational maturity and for presumed correlates of vocational maturity were used. In a similar attempt Kathuria (1974) probed into some personality determinants of vocational maturity and career indecisiveness. The sample consisted of

1000 females studying in undergraduate classes in arts and science at two women colleges at Ajmer. The vocational maturity scale was developed for local use. Likewise, vocational indecision scale was also developed. An Indian adaptation of the Taylor's Manifest Anxiety Scale was the third tool used for data collection. Reddy (1974) aimed at investigating the nature of vocational development in the high school boys of grades IX and XI in the southern states of India. Rural/urban and socio-economic variations in this regard were also studied.

STUDENT APPRAISAL

A large number of research studies seemed to be appraisal studies covering varied characteristics in diverse situations. Pandey (1960) investigated into the reading interests of high school boys in the Lucknow division. Questionnaires and rank order sheets were administered to 4424 students of classes IX and X and teachers' questionnaire was administered to 238 teachers. Naik (1963) enquired into the general nature of reading interests and habits in adolescents and adults. Singh (1965) aimed at establishing some working propositions which related to the various aspects of interest and understanding the nature of interest and the various factors affecting its growth and development. The study was conducted on a sample of 1436 successful candidates from arts, science, agriculture, etc. The interest inventory was developed for local use. Bardhan (1965) studied the development of interest of secondary school boys from four different streams. Thakur (1966) studied the reading interest of boys and girls. Sumathykuttamma (1973) enquired into the science interests of the high school students and probed further into the various science competencies. The study was accomplished on a sample of 1000 students of grades IX and X. A questionnaire-cum-inventory for pupils and a separate questionnaire for teachers were used for data collection. Patel (1967) studied various types of interests of school pupils taken from classes IX through XI and looked into differences in interest due to age, sex, rural and urban origin, and cultural background. Singh (1967) attempted to study patterns of interest of school-going boys and girls and studied their educational implications as well. Sharma (1975) looked into the personal and sex interests of school-going rural and urban adolescent boys and studied further their maturity and adjustment.

Varma (1960) attempted to discriminate between rural and urban areas in respect to specified type of mental ability in a tract of the country which is noteworthy for its comparative urban affluence

and rural destitution. Sharma (1967) studied the developmental changes in the magnitude of six mental abilities, namely, verbal, numerical, reasoning, spatial, perceptual and mechanical and traced the process leading to stabilisation of these abilities.

Some of the studies characterised by developmental slant in the measurement were directed to studying trends in the development of personality. Johri (1960) studied the personality development of post-adolescent girls and made efforts to assess the impact of participation in games and cocurricular activities on the total personality make-up. Phatak (1963) explored the growth tendencies and group and individual differences through observation in children of grades I and IV. Mitra (1968) traced the educational, social and emotional growth of small group of children between 3 and 3½ years of age. Muralidharan (1971) studied the patterns of motor development in children between 2½ and 5 years and established norms at intervals of six months.

Studies by Panse (1960) and Chandrasekaran (1970) were directed to study the effect of dietary intake upon physical development and nutritional status. The former studied the effect of four supplementary diets, namely, neera, palm-gur, skimmed milk and plantain on the physical development of children in the age group 6 to 11 years while the latter compared the dietary intake and nutritional status in the school boys aged 7 to 12 years belonging to different socio-economic status groups.

Evidence to make use of certain nondirective techniques in counselling is obvious from some of the researches. Dhondiyal (1964) used art as a projective technique for identifying deviant behaviour. Ghosh (1974) used structured autobiography as a technique of counselling. Mathur (1975) conducted an analytical study of children's free expression drawings for predicting their vocational interests.

Bureau of Psychology, Allahabad (1952) devised a battery of tests to forecast success in various streams of secondary courses on the basis of individual testing and again in the year 1956 undertook a group guidance project for the allocation of junior high school leavers to four types of higher secondary education. Mathur (1966) standardised an intelligence scale and established norms so as to facilitate a comparative study of levels of intelligence of entrants to courses of engineering and teaching. Parameswaran et al. (1968) studied the relationship between aptitudes and preference for courses on a sample drawn from first and third years of degree course

in engineering, science, arts and commerce as well as research scholars and young engineers. Bhalla (1970) constructed and standardised a test for identifying disciplined and undisciplined college students of the age group seventeen to twentytwo years and compared the two groups in respect of their patterns of self-concept.

A few of the appraisal studies were directed to the study of typical personality characteristics. Bhatt and Advani (1965) studied conformity and deviation among the adolescents from a socio-psychological point of view and their attitudes towards values of Indian culture were also assessed. Patel (1965) conducted a study on 198 children from typical Anglo-Indian schools of Calcutta with a view to investigating patterns of acceptance, rejection and friendship by English speaking child of non-English speaking child in the context of language, personality, the level of social development, intelligence, age, opportunity for contact among the members of the group, and sex. Nijhawan et al. (1968) sought to find out the determinants of anxiety to verify some aspects of Freudian theory.

Interrelatedness between intelligence, achievement, personality, adjustment, interest patterns, life at home and in school and popularity of secondary school pupils was studied by Sharma (1970). In another study Roy (1969) compared low achievers and high achievers in respect of adjustment. The two groups were matched for education, cultural and socio-economic background. The standardisation of student adjustment questionnaire was also done for local use. Dutt (1966) studied the relationship between otherworldliness, self-surrender and mental health.

STUDY HABITS

Jamuar (1961) constructed a study habit inventory and attempted to find out some psychological factors underlying the study habits. Palsane (1963) also contributed to the development of a study habit inventory and made efforts to find good and economic study habits. Rao's study (1965) was diagnostic in the sense that it aimed at identifying specific reading weaknesses of poor readers in contrast to good readers in high schools. The attainment reading test and the diagnostic reading test were used for data collection. Kundu (1970) provided an altogether different basis for studying reading efficiency and studied the difference in reading efficiency that would manifest itself when students were asked to study a selected assignment in the classroom with and without phonographic music.

APPRAISAL OF COUNSELLING, FOLLOW-UP AND SCHOOL CLIMATES

Bhatnagar (1972) studied the effect of individual counselling on the achievement of bright under-achievers and aimed at identifying some factors associated with under-achievement. The study was conducted on a sample of 20 bright under-achievers selected from classes VII through XI from one school in New Delhi.

Saraswathi (1973) thought of identifying the jobs on which home scientists were working and determining the competencies needed on each of the jobs. A total of 128 home scientists and fiftyseven employers from Baroda were contacted and given a task list specifically designed for determining the competencies on the job.

Gajjar (1974) surveyed and reviewed the student personnel services provided at the M.S. University, Baroda with a view to finding out as to how far the university students, teachers and administrators were aware of them and to what extent these services were being utilised.

On school climates, a reference of two studies is made here. Ganguly (1965) conducted an experimental study of the intellectual factors in the students of pre-school leaving class under different systems of secondary education with a view to verifying the claims that the quality of schooling makes a difference in intelligence test scores between best and worst schools. In another study Rastogi (1967) attempted to see the extent to which school climates stimulate the students intellectually. Samples from convent schools, government and aided schools, and municipal schools were taken.

RESEARCH GAPS AND PRIORITIES

A brief review of research studies given above and research abstracts presented herein after, when seen in the context of earlier reviews regarding the development of guidance and counselling in India, indicate that guidance services have rarely been brought to the portals of elementary schools. The research in this field is available only in disorganised manner and sporadic attempts seem to have been made here and there to explore diverse areas of guidance resulting into duplication of efforts at moments or gross neglect of certain other areas. For instance, great many tests, as reviewed by Long and Mehta (1966) in the First Mental Measurement Yearbook, Pareek and Kumar (1966) in the Directory of Behavioural Science Research in India, and Pareek and Sood (1971) in continuation to Pareek

and Kumar (1966), are available in India which can be safely used by counsellors. Any attempt, therefore, to duplicate efforts, especially in the standardisation of psychological tests, seems to be a futile exercise. Tests, other than already available, such as, individual tests, diagnostic tests, prognostic tests, concept mastery tests should be undertaken for standardisation in future.

The dynamics of counselling in classroom situations could not find its place in researches that have been taken thus far. Dropouts, frustration in students, vocational planning are other significant issues which need be explored threadbare. Counselling needs

to be seen in the context of goals of education, purposes and values, functions, processes, outcomes, and social and psychological considerations.

Considerable attention to students' needs and problems through analytical diagnostic studies should be given. Counselling for decision making, for making appropriate choices through group activities, for the development of individual potentialities needs to be explored through concerted research efforts.

Finally, counselling in education needs to be identified in terms of theory derived from educational objectives and processes.

ABSTRACTS : 273-312

273. *ALVARES, L., A Study of Problem Children in the City of Bombay, Ph.D. Soc., Bom. U., 1961.*

The main objective of the investigation was to study problem children.

The sample consisted of 100 children and the records of nearly 1000 children were consulted. The children and their parents were interviewed and necessary information regarding these children was collected through psychologists and psychiatrists.

The study revealed that (i) there was shortage of trained hands to handle these types of children; (ii) delinquent actions were symptoms of some deeper stresses; these delinquent actions were the products of faulty emotional development in childhood; (iii) the mental hygiene movement was not so much successful in India; (iv) numerous institutions sprung up all over the country and catered to the specific needs of such children; these institutions provided welfare services; (v) many behaviour problems were at social level; this was on account of lack of opportunities for recreation or companionship, or inability to adjust.

*274. *BAGARHATTA, J. P., Effect of Chronic Exercise on Electro Cardiogram Haemodynamics Haemostasis and Blood Chemistry in Patients of Coronary Heart Disease, Ph.D. Edu., Raj. U., 1973.*

The objectives of the study were : (i) to study the effect of exercise on the patients of coronary artery disease; (ii) to study the effect of exercise therapy on symptomatology electro-cardiogram, haemodynamics, blood chemistry and haemostasis.

As many as twenty normal persons and fortyfive patients of coronary heart disease were selected for the present study. These fortyfive patients of coronary heart disease were divided into three groups : (i) Ischaemia Group I, (ii) Ischaemia Group II, and (iii) Ischaemia Group III. In each group there were fifteen patients. In each case a thorough history of the present illness, family history suggestive of coronary heart disease, diabetes mellitus and syphilis, dietary and occupational history, personal habits and behaviour were taken in details. All the normal controls and patients of coronary heart disease were investigated by (i) routine blood examination, (ii) routine urine examination and (iii) V.D.R.L. treatment.

Some of the major findings under separate headings were as follows : (i) Normal control group : There was no change in electro-cardiogram after the completion of one month exercise. In case of haemodynamics, there was decrease in heart rate by less than ten beats per minute in six, and thirteen in one. In case of haemostasis, there was decrease in clotting time, platelet count and serum fibrinogen level in all the ten cases while prothrombin time remained unchanged. Fasting blood sugar level decreased in seven and remained unchanged in three. (ii) In three cases the pre- and post-exercise electro-cardiograms were normal, in two cases which had hypertension and where double masters test was doubtfully positive, it became distinctively negative after one month's exercise. (iii) Ischaemia Group I : The pre-exercise electro-cardiograms of these fifteen cases showed infero-lateral ischaemia in five, inferior ischaemia in five, antero-lateral ischaemia in three and anterior ischaemia in two cases. As regards haemodynamics, there was decrease in heart rate ranging from two to eight beats per minute in thirteen cases, increase of four beats in one and in the remaining case, it remained unchanged. Blood sugar levels decreased significantly after the completion of one month's exercise. (iv) Ischaemia Group II : In the electro-cardiogram patients there was a distinct improvement in their functional capacity. In case of haemodynamics, there was a decrease in heart rate in twelve cases, and an increase in two cases while one remained unchanged. (v) Ischaemia Group III : As regards electro-cardiogram, there was definite improvement in seven cases, deterioration in three and in one case it was unchanged. Blood urea did not show any significant change.

*275. *BENGALEE, C. D., An Inquiry into Maladjustment among Juveniles (9 to 17) in Greater Bombay, Its Remedies and Prevention, Ph.D. Edu., Bom. U., 1975.*

The study had the following objectives : (i) to investigate the nature, degree and extent of maladjustment; (ii) to locate different areas of maladjustment; (iii) to help the maladjusted to return to normalcy; (iv) to detect the factors of maladjustment with a view to preventing its spread; and (v) to help the personnel dealing with the maladjusted to draw out programme to help the abnormal.

The sample was drawn from twentyeight secondary schools selected on linguistic basis from diff-

erent areas of Greater Bombay and institutions catering to the needs of the maladjusted population like the remand homes, juvenile homes, children's homes, special schools for the slow learners and retarded, and child guidance clinics. Questionnaires, observation and interview techniques were used to collect data.

The following were some of the salient findings : (i) Maladjustment was greater amongst boys than girls. (ii) About 50.9 percent were socially maladjusted. (iii) Maladjusted children due to low intellectual conditions showed considerably more symptoms of depression, hostility towards parents, and emotional tension. (iv) The children referred to the child guidance clinics for behaviour problems were reported to have had unfavourable parental attitudes, inconsistent handling and lack of interest in their progress. (v) The physically handicapped were more introvert and had high neuroticism. (vi) According to the teachers' estimate, the maladjusted children were nervous, aggressive, and showed symptoms of psychosomatic nature. (vii) As for the home conditions, it was revealed that maternal deprivation was more likely to have ill effects. The paucity of trained teachers and lack of counsellors were responsible for the minor maladjustment in the ordinary schools. (viii) Underachievement occurred more frequently among children who had emotional problems and those who came from low income group and also from immigrant families. They tended to leave school at the earliest opportunity.

276. BHATNAGAR, A., *A Study of the Effect of Individual Counselling on the Achievement of Bright Underachievers*, NCERT, New Delhi, 1972.

The objectives were : (i) to study the effect of individual counselling on the achievement of bright underachievers; and (ii) to identify some of the probable factors associated with underachievement of the bright pupils. The basic assumption underlying the study was that there were some noncognitive factors influencing academic achievement of the bright pupils and the influence of these factors could be overcome by the pupils themselves if some guidance was provided. Individual counselling had been used as a technique of guidance for the study. It was hypothesised that there would be an improvement in the achievement of the bright underachievers after individual counselling. An effort was also made to identify some of the noncognitive factors associated with underachievement of the bright.

The sample was drawn from one school in New

Delhi. Twenty bright underachieving pupils were selected from classes VII, VIII, IX, X and XI for the study. The identification of the bright underachievers was done with the help of three group tests of intelligence, viz., Verbal Reasoning (DAT), Abstract Reasoning (DAT), and the Nafde's Non-Verbal Test of Intelligence, teachers' opinion about the pupils, and the academic attainment of the pupils. The Stanford Binet Test of Intelligence was administered to each of the twenty students to confirm the ability level. After the fact finding interviews with pupils, teachers, and parents, and collection of school marks, etc., individual counselling started. The approach adopted differed according to the nature of the problem and need. Three or four sessions of counselling were held. The main aim of the counselling was to help the pupil in self-acceptance, self-understanding and self-actualization. Pre- and post-counselling examination marks were converted into stanine grades and the Wilcoxon matched pairs signed ranks test (using a one tailed test) was applied to see the significance of difference in pre- and post-counselling achievement marks.

The results revealed that there was an improvement in the achievement of the pupils who had been given individual counselling and some noncognitive factors emerged as factors associated with the underachievement of the bright pupils. These could possibly be grouped into four broad categories, namely, (i) psychological factors; (ii) physical factors; (iii) familial factors; and (iv) educational factors. Wilcoxon matched pairs signed ranks test was applied for one tailed test to see the improvement in achievement of bright underachievers having psychological problems; it was found that the improvement in the overall achievement of this group of pupils was significant at 0.01 level for one tailed test. The results of the study supported the thinking that there should be a full-time school counsellor with well-organised guidance programme in every school to guide the bright underachieving pupils. Also, the noncognitive factors associated with their low achievement should be identified at an early stage to avoid unnecessary wastage and stagnation of the valuable talent of the nation.

277. CHANDRASEKARAN, K. N., *Nutritional Studies on Children of the School-going Age*, Ph.D. Home Science, MSU, 1970.

The objectives of the present study were : (i) to get comparative data on the adequacy of dietary intake and nutritional status in the school boys aged seven to twelve years in the lower and upper classes and the extent to which the boys in the lower class are affected by differences in dietary intake resulting

from economic conditions; and (ii) to find out the extent to which the nutritional status of the under-nourished children can be improved by school lunch.

The study employed a total sample of 111 subjects consisting of sixty subjects in Raipura, a backward village, thirty subjects in Bhaili, a semi-urban village, and twentyone subjects belonging to upper class in Baroda. Raipura boys in the experimental group were given a balanced school lunch for a period of five months. Observations were recorded of the effects of the same on their physical, clinical, biochemical and psychological status. As for tools, personal oral interviews were conducted for checking and studying dietary intake. Weight and length measures were employed for physical stature. The nutritional assessment schedule suggested by ICMR was used for clinical examination. Urine and blood were also analysed.

The major findings of the study were : (i) the diets of the subjects in Raipura did not include enough of food, such as, milk, eggs, fish and meat or cheaply available leafy vegetables and their diets were deficient in protein, calcium and vitamin A; (ii) the differences in dietary intake were found reflected in physical stature; (iii) subjects of Raipura and Bhaili were found to show clinical deficiency; (iv) most of the upper class subjects were free from deficiency symptoms; (v) eightyfive percent of the boys in Raipura were found to suffer from severe hookworm infestation; the proportion was less in Bhaili (twentythree percent) and in upper class subjects, no hookworm infestation was found but roundworms were found in fifteen percent of the subjects; (vi) the composition of blood, serum and urine also showed superior biochemical status of the upper class boys as compared to those in Raipura and Bhaili; (vii) supplementation with a school lunch for a period of five months did not show any appreciable improvement in height or weight of the fed children (experimental group) as compared to their counterparts in the control group, but there was a significant improvement in clinical and biochemical status, along with the clearance in most of the subjects of the symptoms of Vitamin A and riboflavine deficiencies; and (viii) the results underscored the wide gap between the lower and upper classes with regard to physical, clinical and biochemical status and suggested that the former could catch up with the latter if given a balanced school lunch which was not expensive and which could be based on the locally available resources.

*278. DAVE, H. M., *A Study of Institutionalized Delinquent Girls*, Ph.D. Edu., Guj. U., 1976.

The objectives of the study were : (i) to survey rehabilitation work in Gujarat; (ii) to prepare case histories of juvenile delinquents; (iii) to categorise the various types of juvenile female delinquents and find the proportion in each type; (iv) to analyse the cultural factors surrounding the delinquents; (v) to study psychological factors concerning delinquents; (vi) to study the frequency of occurrence of various causative factors; (vii) to study relationship between type of delinquency and the occurrence of particular factors; (viii) to study the interrelationship among various factors occurring in a type of delinquency; (ix) to prepare case histories of non-delinquents who have faced adverse circumstances; (x) to analyse cultural factors surrounding the non-delinquents; (xi) to compare the environmental factors of delinquents and non-delinquents; and (xii) to recommend remedial measures.

A cluster sample of 77 institutionalized delinquents, and 25 non-delinquents in adverse circumstances, in the age group 12-18, constituted the sample. The methods adopted for data collection were case study and unstructured interview.

The major findings were : (i) the number of institutionalized male delinquents was almost double that of female ones, though in the case of latter the institutionalization was much longer; (ii) delinquents mainly comprised sex delinquents, married rebels, unmarried rebels, etc., though not a single delinquency was restricted to one crime only; (iii) average age of the delinquents was sixteen, fiftyseven percent of them had only primary education, and fortythree percent had illiterate parents; (iv) 'broken home' and 'lack of sympathetic handling' were the most outstanding factors promoting delinquency, the other important factors being 'feeling of insecurity', 'aggressive behaviour', 'poverty', 'illtreatment', 'tedium of life', etc.; and (v) counter action could be done by factors like 'parental care' and 'sympathetic handling'.

279. GAJJAR, J. J., *A Critical Study of Perceptions of M. S. University Community towards Student Personnel Services*, Ph.D. Edu., MSU, 1974.

The study was undertaken with a view to surveying and reviewing the student personnel services provided at the M. S. University campus and to finding out how far the university students, teachers and administrators were aware of it and to what extent their advantage was being taken. It also aimed at measuring and comparing the perceptions about these services among the various segments of the university community.

Using the stratified random sampling technique a sample of 982 students, eightythree teachers and forty-one administrators was drawn. This sample included 694 men and 288 women. Of the total sample of the students 105 were postgraduates, 625 were undergraduates and remaining 252 were preparatory students. The sample of teachers included eight professors, fourteen readers and sixtyone lecturers. Among the administrators were included thirtythree senate members and eight syndicate members. The data were collected mainly through specially prepared questionnaires and were supplemented in certain cases by non-structured interviews. The questionnaire consisted of six sections for students, ten sections for teachers, and nine sections for administrators; some sections were common to all while some were common to teachers and administrators and one section was specially meant for administrators.

Major findings of the study were : (i) the M. S. University community was not fully aware of all the twentyone student personnel services available on its campus, (awareness for a given service ranged from a maximum of eightythree percent to a minimum of two percent); (ii) considerable difficulties were experienced by new entrants; (iii) the university community was not sufficiently clear about the impact of personnel services on students; (iv) among the students, variables like length of stay at the university, residential status, sex and economic level were related to the knowledge and use of services; (v) variables like age, urban-rural background and caste status were not related to the frequency and types of difficulties experienced at the time of entry; (vi) reactions of administrators, though, on the whole, favourable, were usually focussed on the financial aspects; (vii) students as well as teachers felt that though adequate provision for student personnel services was not a complete answer to student unrest, it could play a significant role in preventing some undesirable occurrences and in reducing the intensity of some others; (viii) teachers who had either studied at or visited the U.S.A. perceived more clearly the importance and impact of these services than those who did not get such an opportunity; (ix) majority of administrators (teachers as well as non-teachers) had some confusion between the physical facilities and personnel services; (x) only about ten percent of the administrators felt that the university should make efforts on its own to get finances for student services; (xi) teachers who had better personal contacts with the students and/or who were active members of the committees pertaining to students' affairs were more clear about the needs of the students and the role of personnel services in help-

ing the students in various ways; (xii) the university was moving, though slowly but steadily, towards the fuller recognition of importance and subsequent implementation of student personnel services.

*280. GAUR, J. S., *Effect of Counselling on Potential School Failures*, Dept. of Educational Psychology and Foundations of Education, NCERT, New Delhi, 1970.

The study attempted to test the efficacy of counselling as a guidance method in an ordinary school in bringing out (i) gradual improvement in school subject achievement; (ii) positive change in the pupils' behaviour-cum-attitudes towards studies; (iii) positive changes in teachers' observations of such pupils; and (iv) certain recommendations in the light of the experience gained by this study for the provision of counselling service to such a specific category of pupils.

A sample of twentyeight students was selected from classes VIII and IX of the Government Higher Secondary School, Qutab, Delhi on the basis of (i) the intelligence measured by the Jalota's Test of General Mental Ability and the N.I.I.P.-70/23 (a nonverbal test of intelligence), (ii) behaviour descriptions of the students as marked on a list of sixteen negative behaviour descriptions noted generally in case of potential school failures, and (iii) school subject marks for the last two school examinations. A pupil behaviour-cum-attitude checklist was prepared and administered to the twentyeight students selected. Based on the data on all the above aspects mentioned, the sample was divided into equivalent control and experimental groups. The experimental group was subjected to a counselling technique involving problem solving process. The school subject marks, teachers' observations on the list of sixteen negative behaviours, and the responses on the pupils' behaviour-cum-attitude checklist by both the experimental and control groups were obtained after the treatment. The data were analysed by using t test.

The following were the findings of the study : (i) The extent of the maximum deviation in the two groups at the first school achievement test did not show a significant effect due to counselling, whereas the achievement on second test showed a significant effect on the experimental group students due to counselling. Further, the achievements on third and fourth school tests did not show a significant effect of counselling as regards the deviations in the achievement of the two groups were concerned. (ii) The teachers' observations for the experimental group students before and after the counselling programme differed

significantly at 0.05 level; but those of control group students did not differ significantly. (iii) Counselling did not bring out significant changes in the attitudes and behaviours of students.

281. GHOSH, H. C., *A Study of Structured Autobiography as a Counselling Technique in Indian Schools*, Ph.D. Edu., Cal. U., 1974.

The aim of the study was to find the applicability of the structured autobiography technique as a guidance technique in Indian schools. It was hypothesised that if different aspects of autobiography are found empirically valid, it may be considered a feasible technique in exploring the structure, dynamics and functions of the inner world of the Indian adolescents. The aspects examined in relation to autobiography were educational growth, vocational aspiration, needs, problems, hopes and aspiration of the adolescents and as a technique in exploring the self-concepts, different dimensions of self, meaning of the external events to the internalised experiences, goals, and adolescents and their characteristic methods by which they tried to realise cherished goals and values.

A sample of 1677 students was selected from classes VI, VIII and IX which included both urban and rural secondary schools. The data were collected with the help of structured instructional sheet. The students were asked to give their autobiographies covering six major areas: home environment, early childhood, present conditions, friendship, hopes and aspirations, and problems. Content validity of the instrument was estimated by means of judgments drawn after reading the autobiographies, verification with school records, and personal interviews. Reliability was determined by comparing the two autobiographies written by each student on different occasions and by evaluating them by three different judges.

The analysis of data revealed that (i) autobiographies were sources of personal information, and sex difference was also found in revealing information; (ii) boys of classes VI and VIII and girls of class IX revealed more about their educational development; and (iii) girls wrote more about vocational choices than boys.

*282. JAYALAKSHMI INDIRESAN, *Multivariate Analysis of Factors Affecting Job Satisfaction of Engineering Teachers*, Ph.D. Psy., I.I.T. Delhi, 1974.

The investigation was undertaken to study the relationship of ten background variables, eight general attitude variables, twentytwo personality variables, six organisational dimension variables and two supervi-

sory style variables to job satisfaction among teachers of technological institutions.

Data were collected from 208 teachers from thirteen institutions of engineering and technology in India and U.K. Job Satisfaction Inventory and Organisational Atmosphere Questionnaire were developed for the study. Other tools used were the Lodhal and Kejner's Job Involvement Inventory, the Gordon Personal Profile, the Gordon Personal Inventory, the Survey of Personal Values, the Gordon's Work Environment Preference Schedule, and the Leader Behaviour Description Questionnaire. The data related to certain background information and general attitude towards job satisfaction were also collected through a questionnaire. Univariate t test, multivariate discriminant function analysis and linear regression analysis were used to analyse the data.

The following were the findings of the study: (i) Two of the background variables, namely, research involvement and research output, two of the general attitude variables related to permanence of career plan and time satisfied were identified as significant discriminators of highly satisfied and highly dissatisfied teachers. (ii) The personality variables, namely, sociability and personal relations which showed significant t values in univariate analysis were not identified in multivariate analysis. The variables, namely, support, conformity, recognition, independence, benevolence, leadership and ascendancy which had high scaled discriminant functions, did not stand the statistical tests of significance in the set-up discriminant function analysis. (iii) Regarding the variables related to perceived characteristics of leader behaviour, both the dimensions, namely, initiating structure and consideration were found to be significant variables in predicting job satisfaction. (iv) All the five dimensions, related to perceived characteristics of the organisational atmosphere, namely, esprit, authority, hindrance, administration, and fairness were found to be significant variables, the total score being the single best predictor of job satisfaction. (v) The cross-cultural comparison between the teachers of U.K. and India showed that context job factors seemed to be more important in predicting the job satisfaction of Indian teachers while content job factors were more important to the English teachers.

*283. JOGAWAR, V. V., *Development of Self-Concept in Relation to Some Family Factors at the Adolescence Level*, Ph.D. Psy., Nag. U., 1976.

The aims of the study were to find out: (i) how the self-concept of the adolescent (age group thirteen

to twenty) changed as a function of age, (ii) the relationship of these changes with some family factors; and (iii) the relationship of sex with these changes.

The sample consisted of 880 adolescent boys and girls from the selected schools and colleges of Amravati to represent the adolescent population of the city of Amravati. Self-concept, the dependent variable, had the following dimensions — perceived self (P.S.), social self (S.S.), ideal self (I.S.) and the discrepancies between them. The independent variables were : (i) parental cordial relations; (ii) democratic attitude of the parents; (iii) acceptance of the child by the parents; (iv) acceptance of the parents by the child; (v) socio-economic status (SES) of the family; (vi) age; and (vii) sex. Instruments to measure the self-concept with all its dimensions and the five family factors were constructed with acceptable reliability and validity. The analysis of the data was done in two ways — (i) general growth curves, and (ii) differential growth curves. For studying the significance of difference between groups, one way analysis of variance was utilised.

The findings were as follows : (i) The development curves of P.S. and S.S. stood at a higher level at the beginning and the end stage of adolescence, whereas these were at a considerably lower level at the middle of the adolescence period. (ii) The development curve of the I.S. fell steadily as the age advanced and at twenty it was statistically different from what it was at the beginning of the adolescence. (iii) Both the sexes showed just the opposite trends in their development from thirteen to twenty in case of P.S., S.S. and I.S. (iv) In case of the discrepancies the general trend was that of decline from the beginning to the end of the adolescence on development curve and in both the sexes. (v) Under each family factor out of the four, neither lower nor the upper twentyseven percent group on any dimension of self-concept showed systematic development when the year-to-year means were compared. (vi) Mean of the upper group differed significantly from the mean of the lower group in case of major dimensions of the self-concept (P.S., S.S. and I.S.), meaning thereby that the favourable family conditions helped the adolescent individual to grow a better self-concept. (vii) Means of the four SES groups (lower, lower-middle, upper-middle and upper) when compared showed that the better the SES of the family the better was the self-concept the adolescent developed.

*284. KALE, S. V. and DANKE, B. D., *Developmental Norms Project (5½ to 11 Years)*, Dept.

of Applied Psy., Bom. U., 1976. (NCERT financed)

The study was forwarded on five sets of hypotheses indicating relationship between the independent variables, viz., intelligence, age-grade groups, sex, child-parent interaction, socio-economic status, school differences, and school type; between the dependent variables, i.e., scores in mathematics, language and social maturity tests; between the dependent and independent variables; between dependent and intervening variable — the cognitive development, and between independent and intervening variables. In the first set of hypotheses : (i) IQ has been assumed to be related to age-grade groups, sex, child-parent interaction, SES, school type; (ii) SES has been said to be related to school type and child-parent interaction; and (iii) school type and child-parent interaction would be related to each other. In the second set of hypotheses it has been proposed that (i) scores on language and mathematics are inversely related; (ii) the scores on language and social maturity test are positively related; and (iii) scores on mathematics and social maturity are not related to each other. In the third set of hypotheses it has been proposed that scores on mathematics, language and social maturity are significantly related to age-grade groups, sex, SES, IQ and parent-child interaction. School type is related to language and mathematics scores in curvilinear relationship but not with social maturity. In the fourth and fifth sets of hypotheses, it is proposed that the cognitive development or Piaget type tasks would be related linearly to the scores on language, mathematics and social maturity tests and all the independent variables, except for SES where the relationship is curvilinear.

In this study an experimental design was followed. The controlling factors in selecting subjects were (i) medium of instruction — Marathi, English and Hindi, (ii) areas — industrial and nonindustrial, (iii) grade — I, II and V; (iv) school type — municipal, recognised and aided, and (v) sex — male and female. About two to six boys and equal number of girls from each grade of each school were selected on random sampling method. The data were collected through different tools — SES was measured by a questionnaire, intelligence by the Porteus Maze Test, parent-child interaction by an integrated scale, language and mathematics by achievement tests, and cognitive development by Piagetian task performance.

The study revealed that (i) IQ was not related significantly to age-grade, sex, child-parent interaction,

SES and school type; (ii) parental care was not related to grade level, but to SES and school type; (iii) the scores on mathematics and language were not inversely related, social maturity was related negligibly to language and mathematics scores; (iv) the achievement scores in language differed with age-grade groups in case of Marathi and Hindi medium schools; (v) language achievement score was not related to IQ, sex, SES, but to school type and parent-child interaction; (vi) the mathematics scores were related significantly to age-grade, sex and school type but not to SES, IQ and parent-child interaction; (vii) scores on social maturity had little relation to sex, SES, IQ, parent-child interaction, but it was related to age-grade and school type; (viii) cognitive development had little relation with language achievement, mathematics achievement and social maturity; (ix) the cognitive development was related significantly to age-grade groups, and school type; it had curvilinear relation with medium of instruction and negligible relationship with IQ, parent-child interaction and sex.

285. KATHURIA, M., *An Investigation of Some Personality Determinants of Vocational Maturity and Career Indecisiveness*, Ph.D. Psy., Raj. U., 1974.

The study aimed at determining the relationship between three variables, viz., (i) vocational maturity, (ii) vocational indecision, and (iii) manipulative treatments affecting personality variable like anxiety.

The sample consisted of 1,000 female undergraduates in arts and science courses at two women colleges at Ajmer in Rajasthan State. The sample was in the age range of sixteen to twentyone years. Vocational maturity was measured by a scale analogous to the Vocational Development Inventory by Crites. This instrument was prepared by the investigator and it had a reliability index of 0.73. This scale was termed 'The Vocational Maturity Scale'. The second variable, vocational indecision was measured by a scale entitled The Vocational Indecision Scale, which also was developed by the investigator and which had a reliability index of 0.58. The third variable of anxiety was measured using an Indian adaptation of the Taylor's Manifest Anxiety Scale.

The main findings were as follows: (i) informal experience resulted in higher scores on the vocational maturity scale and lower scores on the vocational indecision scale; (ii) the scores on vocational indecision scale were lower for the undecided group than for the decided group and the scores on vocational maturity scale increased more for the immature than for the mature subjects; (iii) there was no significant differ-

ence on the anxiety scores of the two groups of subjects; (iv) the effect of 'anxiety induction' on the vocational maturity scale scores as well as on the vocational indecision scale scores was not immediately manifested, but a duration effect was found after four weeks, wherein significantly higher scores were found on the vocational maturity scale and lower scores on the vocational indecision scale; and (v) the effect of the combined treatments was to raise the scores on vocational maturity scale and to lower the scores on vocational indecision scale.

*286. KUMARA SWAMY, T. S., *An Enquiry into the Emotional Development of Children in the Age Group of Five to Seven Years*, Ph.D. Edu., Mys. U., 1976.

The main objective of the investigation was to make a depth study of the emotional development of school going children of both the sexes who were normal in their intellectual and emotional growth and were between five and seven years.

After considering the health conditions and socio-economic backgrounds, twenty-six boys and thirty-one girls in the age group of 5 and 5+ years and twenty-one boys and twenty girls in the age group of 6 and 6+ years from fourteen elementary schools in Mysore city were selected for the study. The Kannada version of the Kamath's Intelligence Test and the Uma Chaudhury's Children's Apperception Test adapted to the Indian conditions were administered in order to ascertain that the samples were normal in their intellectual development and in their emotional reaction. The data were collected through observation by parents, teachers and the investigator, and through interview.

Some of the salient findings of the study were as follows: (i) Children between five and seven years displayed their love through affectionate conversation, libidinal contacts such as hugging and holding hands, sharing their belongings, fondling and kissing babies, and also by showing attachment to domestic pet animals. Love was usually displayed as a response to love from others. (ii) Children expressed their joy through facial expressions along with body movements and through verbal expressions. Girls used body movements more frequently than boys while displaying their joy. (iii) Sympathy was expressed by overt action as helping, comforting, etc., and verbal expressions. In schools, sympathy took the form of offering protection, consolation, pacification, etc. (iv) Children manifested a variety of laughter. As age advanced from five to seven years, boys laughed more outside the classroom while the girls laughed more

inside the classroom. (v) Children displayed their elation by showing excessive joy in their faces or by body movements such as jumping, clapping hands feeling exalted, or through verbal expression to this effect. (vi) Children expressed their self assertion by showing pride, insistence, boasting, arguing and pleading. Recourse to arguing decreased as the children advanced in age from five to seven years, but both boasting and showing pride increased in frequency. (vii) Children displayed their wonder through verbal questioning, exclamation and gaping with mouths and eyes wide open. Girls also used bodily movements such as jumping about, clapping hands and shouting in exhibiting their wonder. (viii) Children displayed their anger through facial expressions such as frowning, gnashing their teeth, etc. (ix) Hatred was displayed through verbal expressions, by overt actions such as hitting, pinching, damaging objects, by facial expressions, or by refusing to talk. (x) Children displayed their jealousy through facial and verbal expressions and certain physical responses. Facial expressions of jealousy in them increased in frequency as they advanced in age. (xi) Children expressed their disgust through facial or verbal expression, lack of interest, helpless crying, or physical movements such as rolling on the ground. There was a conative activity and a sense of withdrawal or moving away from the object of disgust. More verbal and facial expressions were displayed by the boys as their age advanced. (xii) Distress was expressed by both boys and girls through crying, gloomy or sad facial expressions, and infrequently by verbal expressions. (xiii) Children displayed their fear through crying or screaming, running for help, or by facial and verbal expression accompanied with body movements or sulking. Threat or failure caused fear both in boys and girls. (xiv) Children showed their worry through facial symptoms, by helpless crying, verbal expression, showing indifference to food, incommunicativeness, or by sulking. Girls used verbal expressions earlier than the boys in talking about their worry. (xv) Children displayed their anxiety mainly through facial expressions, by sulking, faltering while talking, or by anticipating some trouble.

287. MAJUMDAR, C., *A Study of the Problem of Adjustment in Adolescence*, D. Phil. Phil., Cal. U., 1972.

The main objectives of the study were to find out (i) whether maladjusted adolescents possessed certain personal characteristics which differentiated them from the adjusted, and (ii) whether variables in past incidents of development and the present psycho-social

forces operating upon them could be looked upon as the causes of deviant behaviours.

The sample, taken from ten schools of Calcutta, consisted of two control (C) groups — fifty adjusted boys and thirty adjusted girls and two experimental (E) groups — fifty maladjusted boys and thirty maladjusted girls. Ratings of teachers — one overall rating and a rating on an analytical scale indicative of behaviour symptoms — formed the basis for obtaining the study cases. The data were collected on each individual's intellectual level, personal problem areas, attitude towards various institutions, aggression, dominance, group-dependency, emotional stability, self-confidence, moral sense, feeling of insecurity, identification data and bio-social background. The tools used were : a battery of psychological tests, checklists and a case study schedule.

The major findings of the study revealed that (i) social environment did not play an important role in making adolescents pathological in their behaviour pattern; (ii) much discomfort and disharmony was there in the early life of the E groups, particularly in the case of boys; (iii) parent-child relationship, discord in home, the perception of roles played by parents, etc., were some of the important factors that appeared far more unwholesome for the E groups than the C groups; (iv) the maladjusted's family environment was generally, characterised by tension, conflict and overall imbalance; (v) the boys and girls in the E groups were intellectually inferior to their counterparts in C groups and had a great number of dropouts, (vi) the C and E groups differed significantly on the personality characteristics like aggression, group-dependency, self confidence, sense of security and identification in favour of C group; and (vii) there was considerable difference among the groups in respect of problems faced by them and in their attitude towards social institutions.

288. MATHUR, C. P., *An Analytical Study of Children's Free-Expression Drawings with a view to Predict their Vocational Interests*, Ph.D. Edu., Pan. U., 1975.

The main objectives of the study were : (i) to use free-expression drawings as predictors of children's vocational interests; (ii) to prepare norms for the interpretation of vocational interests on the basis of free-expression drawings of children in the age group of 13+ to 14 years; and (iii) to develop a usable projective tool for the prediction of vocational interest.

The study was conducted on the urban population belonging to the six cities, viz., Jaipur, Jodhpur,

Udaipur, Ajmer, Kota and Bikaner in the State of Rajasthan. The development of tool was restricted to predict vocational interests related to medical, teaching and engineering vocations only. For each of these vocations, three types of samples representing inservice personnel, trainees and students were selected. This was done in order to develop a reliable and valid scoring scheme. The total sample thus consisted of seventyfive inservice personnel, seventyfive trainees and 150 students. An analytical approach had been maintained in the study for selecting the components of drawings, in their groupings and estimating their utility in predicting vocational interests. The study used normative survey, experimental, case study, and genetic methods for the collection of data. The Nafde's Nonverbal Test of Intelligence was used as one of the tools, whereas the tools constructed for the study were : (i) scoring card for the scoring of drawings; (ii) analysis card for the analysis of drawings; and (iii) scoring manual.

The study resulted into a scoring manual developed on the basis of five criteria, namely, emotion, imagination, intellect, activity and finger dexterity. Each of these criteria was further split into two characteristics — open and seclusive. On the basis of the total scores for each of the ten characteristics, stanine grade norms were prepared for each characteristic in two ways — separately for each of the three vocations studied and general norms. The study concluded that this total could safely be used to interpret the free expression drawings and predict vocational interests of pupils.

*289. *MENEZES, L., Interpersonal Communication Between Parents and Adolescents as Related to Adjustment in Adolescents, Ph.D. Psy., MSU, 1978.*

The following were the specific objectives of the study : (i) to study the relationship between level of communication of parents and total adjustment of adolescents; (ii) to study sex differences in the level of communication of parents and total adjustment of adolescents; (iii) to study community differences in level of communication of parents and total adjustment of adolescents; (iv) to study the relationship between level of communication and dogmatism of parents; (v) to study the relationship between level of communication of parents and family atmosphere and family adjustment as perceived by adolescents; and (vi) to study sex and community differences in dogmatism of parents, family atmosphere and family adjustment as perceived by adolescents.

The sample consisted of 400 adolescents (both

boys and girls) and their 800 parents drawn from four communities of Bombay city, viz., Christian, Hindu, Zoroastrian and Muslim. Each community was represented by fifty boys and fifty girls. The adolescents were drawn from nine schools spread over North, Central and South Bombay. In certain cases, where adolescents of certain communities were not available in sufficient numbers, families were contacted in neighbourhoods where such groups lived. Data were collected both from parents and adolescents by using the questionnaire method. The Adolescents' Questionnaire had four parts, namely, (i) the Family Atmosphere Scale adapted from Morrow and Wilson, (ii) four open-ended questions on the family, (iii) the Youth Adjustment Analyser (by Mehroo Bengalee); and the Family Adjustment Inventory (by A. S. Patel). The data were analysed by using biserial correlations, product-moment correlation, t test, chi-square, analysis of variance, percentages and averages.

The following were the findings of the study : (i) A positive and significant correlation was found between level of communication of father and mother and total adjustment of adolescents. (ii) A positive and significant correlation was found between level of communication of father and mother and family atmosphere and family adjustment as perceived by adolescents. (iii) A positive and significant correlation was found between family atmosphere and family adjustment as perceived by adolescents. (iv) A positive and significant correlation was found between level of communication of father and mother and dogmatism of father and mother. (v) No significant sex differences were found in any of the variables studied. (vi) Significant community differences were found in level of communication of father and mother, dogmatism of father and mother, total adjustment of adolescents, and family atmosphere as perceived by adolescents.

*290. *NCERT, Pressures on Access to Secondary Education and Choice of School Subjects : A Study in Indian Schools, NCERT, New Delhi, 1975.*

The objectives of the study were : (i) to locate the subjects of interest of pupils of the school final class; (ii) to enquire into the reasons for the pupils' choice of a particular subject; (iii) to study the social and economic background of students with reference to their subject choice; and (iv) to estimate the pressure on access to secondary education.

The study was designed and promoted by the NCERT but conducted by twelve investigators at twelve different places in India with a view to outlin-

ing an all-India picture in this regard. The sample of students was drawn from Delhi, Mysore, Rajasthan (Alwar and Udaipur), Uttar Pradesh (Allahabad, Varanasi and Meerut), Maharashtra, Punjab (Ferozepur), Gujarat and Tamil Nadu. The method of sample selection adopted was multistage randomisation. The size of the sample varied from 148 to 649. The data were collected by using a comprehensive questionnaire designed centrally at the NCERT and modified, in a few cases, depending upon the particular needs of the investigators. The data were collected on bio-data, information about the family, occupational information about the family, choice of subjects and streams, and the reasons for choosing a particular stream. The data were analysed separately for each investigation. Percentages and chi-square test were used in analysing the data.

A few major findings of this group of studies were: (i) in Delhi, choice of science and arts streams were usually of the students; and the two main reasons were to continue in the college and better job opportunities; (ii) in case of Alwar, in fiftyeight percent cases choice of subject was jointly made by the guardian, teacher and student and in thirty percent cases, by students themselves; (iii) the reasons for selection of optionals by Allahabad students were advice of the guardians, teachers and friends, attraction of better employment, special interest in the subject, good marks obtained in the previous class, lack of provision of the subject of interest in the school, nonavailability of the optional subject of interest or its being unpermissible for a particular group, influence of the teachers' good teaching, possibility of getting high marks in the subject, and psychological guidance available; (iv) in Udaipur sample, students offering science belonged largely to high upper middle income group, families with low white-collared jobs and small merchants, upper and middle castes, elementary, secondary and college educated parents, and aristocratic localities; (v) in Tamil Nadu sample, the reasons for choice of optional subjects were liking of the subject (fiftyfour percent) and to go to the college or for job (thirtysix percent); (vi) in Gujarat, the respondents maintained that selection of courses be done jointly by pupil, his parents and the teachers and next in that order was by pupils; (vii) in Meerut, in fiftyfour percent cases students chose their own stream guided by fathers (19.7 percent), and most prominent reasons were to go to college, and better jobs; (viii) in Dhulia (Maharashtra), the choice of a subject was influenced mainly by easiness of the subject, interest in the subject, availability of subject-teaching, high percentage of marks, etc.; and (ix) in Ferozepur, the choice of subjects was di-

rectly related to economic status and educational background of the parents.

*291. *PARIKH, J. K., Study of Non-Normal Children in Relation to Home Environment and Special Care Programmes, Ph.D. Edu., MSU, 1978.*

The main objectives of the study were: (i) to study the possibilities of developing skills — physical, socio-emotional, intellectual and communication — in subjects residing in residential institutions of non-normals; (ii) to study home environment of the subjects; (iii) to develop curriculum for the small group of institutionalised non-normals; and (iv) to develop case studies of subjects.

A pilot study was conducted in two parts, firstly the study of students' home environment and secondly the development of the treatment. Based on the results of the pilot study the curriculum was developed keeping in mind the overall development of a child. Individual and group treatments were formulated to maximise participation in the group. Fifty out of seventy activities were selected with the help of experts and after a pretry-out in another institution. Ten children of two categories, viz., trainable and educable, formed the sample of the study. The tools to measure the overall development of a child in various dimensions — physical, social, emotional, intellectual and communication — were constructed. They were: (i) Interview Guide, (ii) Periodical Development Evaluation (PDE), (iii) Case Observation Records (COR), and (iv) Institutional Observation Schedule (IOS).

The treatment was given for twenty weeks and qualitative and quantitative data were collected. Mean, standard deviation, and analysis of variance were used in the analysis of data. Individual case histories were developed.

The important findings of the study were as follows. (i) The physical development indicated significant improvement in gross motor and finer muscular skills and was significant at 0.01 level. (ii) The three aspects of emotions, viz., independence in work, behavioural characteristics, and expression of emotions in terms of responses towards adults, activities, subjects, etc., changed significantly. (iii) Periodical and weekly evaluation of social skills, viz., adjustment and socialization skills, revealed significant improvement (0.01 level) in the subjects. (iv) The speech and communication skills attained significant gain (0.01 level) in weekly and periodical evaluation. (v) Concept formation and general awareness which formed the mental skills attained a significant gain, possibly because of

children's readiness to learn, direct experiences, reinforcement, etc. (vi) Parents did show a lot of interest by visiting their children regularly, meeting teachers, etc. It was indicated that the parents were unaware of their children's disabilities and expected from the children beyond their capacity.

292. *PARLIKAR, R. K., An Investigation to Study Vocational Maturity of High School Students, Ph.D. Psy., MSU, 1973.*

The important objectives of the study were : (i) to examine the differences in the vocational maturity of boys and girls; (ii) to find out how the development of vocationally mature and immature individuals differed in some important aspects; and (iii) to study the nature and growth of vocational maturity in terms of presumed indices. To study the relationships between the presumed predictors and measures of vocational maturity, the following hypotheses were made : (i) The maturity indices would essentially be the same for students in grades VIII to XI. (ii) Intelligence, school achievement, level of adjustment, interest, identification and independence would be significantly correlated with measures of vocational maturity. (iii) Vocational development of boys and girls would differ in view of sex role identification. (iv) The developmental history of vocationally mature and immature individuals would differ markedly.

The sample consisted of 600 high school students selected at random from each of the grades VIII through XI of the sixtythree Gujarati medium high schools in the city of Baroda. From each of the four grades, seventyfive boys and seventyfive girls were sampled. Two categories of tools were used, viz., tools for measuring vocational maturity and tools for the measurement of presumed correlates of vocational maturity. Three dimensions of vocational maturity were considered, viz., choice competency, choice attitude and consistency of vocational preferences. The presumed correlates of vocational maturity included in the study were intelligence, school achievement, adjustment, interest, identification and independence. The tools included an open ended questionnaire for measuring competence, adolescence adjustment test battery and teacher made test for measuring identification and independence orientation. Competence test consisted of eight items developed by the investigator. Consistency was measured in occupational fields, levels, families and time. Attitude test used in this study consisted of 100 items in Gujarati language and was based on the attitude test of Vocational Development Inventory by Crites. For measuring intelligence the Desai-Bhatt Group Test of Intelligence which was

standardised in Gujarat State and on Gujarati speaking population was used. Achievement was measured in terms of achievement in academic subjects at school. Tests from the Adolescence Adjustment Test Battery standardised at the Faculty of Education and Psychology (Baroda) were used for measurement of social adjustment, family adjustment, personality and interest. The Interest Inventory consisted of two parts having thirty and fifteen items respectively and was based on the Allport-Vernon-Lindzey's Study of Values.

The major findings of the study were as follows : (i) vocational maturity of the grade VIII boys was characterised by competence as well as choice attitude; (ii) among grade IX boys competence was related to choice attitude but not to consistency while in grade IX girls competence was not correlated either with choice attitude or consistency; among grade IX boys consistency and choice attitude were closely related; (iii) in grade X boys consistency and choice attitude were closely associated; (iv) among grade XI boys as well as girls competence was related to consistency and choice attitude; (v) girls had higher consistency within the fields as compared to boys, whereas boys had higher consistency within levels; (vi) intelligence was associated with over-all vocational maturity among students of grades IX and X; (vii) there was a positive correlation between academic achievement and over-all vocational maturity; (viii) in case of grade IX students social adjustment was closely associated with over-all vocational maturity; (ix) family adjustment was associated with over-all vocational maturity among grade IX boys and girls of grades IX and XI; (x) neurosis, self-sufficiency, introversion-extroversion and dominance-submission failed to show any consistent relationship with the measures of vocational maturity; (xi) there was a consistent trend of association between mother-identification and the measures of vocational maturity in grade XI girls, further identification was correlated to some extent with all measures of maturity in grade VIII boys and grade IX girls; and (xii) intelligence as well as achievement were associated with the measures of vocational maturity.

293. *PATEL, K., An Investigation of Sociometric Variables and their Correlates in Multilingual Nursery Children attending Anglo-Indian Schools, D.Phil. Psy., Cal. U., 1975.*

The major objectives of the study were : (i) to study the patterns of acceptance, rejection and friendship with a view to assessing how the non-English speaking child was accepted or rejected by, and form-

ed friendship with his peers as compared to the English speaking child in the nursery group; and (ii) to analyse and evaluate the personal and other variables that would affect interpersonal relations in the particular setting. The variables studied were language, personality, the level of social development, intelligence, age, opportunity for contact among the members of the group, and sex.

The sample consisted of 198 children in a typical Anglo-Indian school of Calcutta with two parallel nurseries functioning in the same school. The nurseries were identical in size, furniture, educational equipment and activities. The children ranged from those that could speak English fluently to those who did not understand the language at all. The main languages represented among each of the nursery groups were English, Hindi and Bengali. The children selected were from different types of families and religious groups, belonged to the upper socio-economic stratum of society and had the average age of 52.20 months. The tools used were (i) the Sociometric Test; (ii) the Seven-Point Scale (Ballim and Farus Work Technique); (iii) the Merrill-Palmer Personality Rating Schedule (Ascendence-Submission); (iv) the Minnesota Pre-School Scale; and (v) the Bridges Scale of Social Development. Opportunity for contact with classmates was taken as the number of days a child attended. Analysis of variance and factor analysis were employed to analyse the data.

The main findings were: (i) the English speaking children received more positive choices, had more mutual choices and gave more positive choices than the non-English speaking children; (ii) a typical non-English speaking child in an Anglo-Indian nursery school was less popular, made fewer friends, socially less expansive and had poor knowledge of English, spoke fewer languages and the combination of languages he knew was not as effective as those of the English speaking child; the non-English speaking child was submissive as compared to his counterpart and showed a lower level of social development and intelligence; (iii) factor analysis showed that the first factor pointed to the existence of a general social acceptability factor, the second factor dealt with friendship (mutual choices) and the third with social rejection; it was found that all the three sociometric factors were determined by language; (iv) it was found that the knowledge of English correlated positively with total choices received; the correlation between Bridge's Scale of Social Development and total choices received was 0.5689 which was significant at 0.01 level; the relationship between IQ and total choices

received was significantly positive; there was no relationship found between opportunity for contact with classmates and sociometric status and between age and sociometric status; and (vi) it was also observed that in all the groups studied, positive choices were received from children of same sex and mutual choices were made almost entirely on the same sex rather than the opposite sex, and negative choices were given to and received mostly from children of the opposite sex.

*294. PATEL, K. and VERSTRAETEN, A., *What They Think: A Survey of Opinions and Attitudes of Students in Jesuit Schools and Colleges in India, Jesuit Education Association of India, 1972.*

The main objectives of the present survey were to obtain information about the types of students that attend Jesuit educational institutions and what the schools have done for the youth to enable them to fit into the modern, developing India with its special cultural and other needs.

The sample of the study included sixty-nine high schools and sixteen degree colleges. The school teachers, students in class X of schools and students in the senior degree or postgraduate courses at colleges were involved in the study. The data were collected through questionnaires which were developed for school students, college students, and school teachers separately.

Some of the findings of the study were as follows: (i) About half of the school students felt that the teachers were quite fair in their dealings with students. (ii) A fair number of school students, especially among the high academic achievers and those from the higher socio-economic backgrounds, were of the opinion that the teachers preferred students with independent ideas and intellectual interests. (iii) Majority of school students felt that their stay in school had helped them to develop various intellectual and moral qualities. (iv) The college students on the whole had more confidence in their parents than in the teachers. They felt that the parents helped them a great deal to exercise freedom with responsibility. (v) About twenty-five percent of the college students felt that their teachers took no personal interest in them. (vi) The college students spent little time on academic work outside class hours. (vii) The teachers generally felt that they treated their students in a fair manner. (viii) A large majority of teachers thought that their school compared quite favourably with other schools in many different areas, especially as regards discipline and moral behaviour.

- *295. *PATEL, S. L., An Investigation to Study Self-Esteem Changes as a Function of Counselling Therapy, Ph.D. Psy., MSU, 1973.*

The chief objectives of the study were : (i) to study the extent to which self-esteem changed and what type of changes occurred under the influence of group counselling; (ii) to examine specific changes in the behaviour of the subject at successive stages of counselling; and (iii) to find out whether the counselling treatment could influence self-esteem changes in the low self-esteem group.

The sample consisted of 100 students (both boys and girls) of class X of five different high schools of Baroda city. After administering the self-esteem scale, two groups, high self-esteem and low self-esteem, each consisting of fifty students were formed. The subjects of each group were divided equally into control and experimental groups. The two experimental groups were then subjected to group counselling for a period of three months. The groups were tested on the four measures, viz., self-esteem, depression, neuroticism, and anxiety. The tools employed were : (i) a self-esteem scale prepared on the basis of Stephenson's Q-technique, (ii) a depressive affect scale, (iii) the Panchal's Neurotic scale, and (v) an anxiety scale prepared on the model of the Taylor Manifest Anxiety Scale (TMAS). Correlation, analysis of variance, and analysis of covariance were the statistical techniques employed for analysing data.

The following were the major findings of the study : (i) Both the experimental and the control groups showed changes in self-esteem after three months but the amount of positive changes was far greater in the experimental groups. (ii) Greater amount of change was found in low self-esteem group. (iii) Low self-esteem control group had least difference in self-esteem measure of pre- and post-counselling. (iv) Changes in the self-ideal were least in the high self-esteem control group. (v) The experimental groups showed marked decrease in neurotic symptoms, depression and anxiety as a result of counselling. (vi) Subjects moved towards greater maturity with the progress of counselling.

- *296. *PATHAK, Y. C., A Study of some aspects of Physical Growth of Children from Two to Six Years of Age from Urban and Rural Areas of Gujarat, Ph.D. Edu., MSU, 1975.*

The present investigation was taken up with the following objectives : (i) to collect reliable empirical data on the essential aspects of physical development which would include the growth of the head, chest,

upper and lower limbs and feet, (ii) to establish reliable and acceptable norms of physical growth at various age-points for the pre-school years, especially for Gujarat, (iii) to investigate the influence of the urban and rural milieu as well as sex differences in the physical growth of pre-school children, (iv) to study the influence of the socio-economic status of the family on the physical growth of pre-school children, and (v) as a follow-up study, to examine the influence of the mother's age, birth order of the child and size of the family on physical development during the pre-school years.

The sample included 990 boys and 868 girls making a total of 1858 children of whom 991 came from the urban milieu and the rest, i.e., 867 from the rural milieu. Baroda was selected as the urban milieu, and villages around Baroda and a few villages around Surat formed the rural milieu. In the urban milieu, the Balwadis of Baroda city were selected while in the rural milieu only those villages which had Balwadis were selected for the study. Children of the age group two to six were included for the purpose. The data available were studied in two parts, namely, (i) cross-sectional study of a total sample of 1858 children, and (ii) longitudinal study of 600 urban children of both the sexes (out of 1858 of the main sample). The data obtained were subjected to adequate statistical analyses, such as, chi-square test, analysis of variance technique and correlational techniques, namely, product-moment correlation, biserial correlation, and contingency correlation.

Some of the major findings of the study were as follows : Most of the findings common to all measures revealed that each aspect increased with the increase in age, and there were significant sex and area differences, boys being superior to girls and urban to rural in most aspects of growth. The growth increased with the increase in socio-economic level. Some specific findings obtained in the cross-sectional study were as given below : Weight increased with increase in age from a mean of 9.70 kg. at age of two years to 15.94 kg. at the age of six years on the whole. There were significant sex differences in weight; boys were heavier (13.94 kgs.) than girls (13.43 kgs.) on the whole. Urban children on the whole were significantly heavier (13.79 kgs.) than rural ones (13.23 kgs.). Weight increased with socio-economic level too. Birth order as well as mother's age also showed a significant interaction in contributing to weight. Family size (number of siblings) was not found to be a significant factor by itself, but had a significant interaction with mother's age. Height increased with increase in age

from a mean of 80.01 cms. at the age of two years to 107.33 cms. at the age of six years on the whole; boys were taller than girls; urban children were found to be taller than rural children. Similarly, height was positively correlated to the socio-economic level, birth order, and size of the family. In all the cases, sex, and area of residence played a significant role and in this respect boys superseded the girls while the rural children were superseded by the urban children. The mixed longitudinal approach to the sample of 600 children showed almost the same trend of growth as the cross-sectional study.

297. PHATAK, P., *Behaviour Problems of Normal School-going Boys of Seven, Eight, Nine and Ten Years of Age as indicated by Parents, Boys and Teachers, Dept. of Child Development, MSU, 1973. (UGC financed)*

The study was undertaken with the assumption that normal boys would be likely to manifest some problem behaviours. The outline of the present study was chalked out as follows: (i) the incidence of problem behaviour in normal school going boys as the indicator of their development problem would be studied; (ii) the recorded problem behaviour would be studied for their appearance and disappearance in the age groups under study; (iii) an attempt would be made to locate the patterns of problem behaviour as related to age; and (iv) changes in the located patterns of problem behaviour in each age group would be studied over a period of one academic year. The sample consisted of seven, eight, nine, and ten-year-old children (boys) selected from four elementary schools in the city of Baroda. The boys in each age group were running the age in which they were placed for study. The information about the problem behaviour of the sample boys was collected from parents, teachers, and the boys themselves using three questionnaires respectively. The data were collected thrice during the academic year of June, 1965 to April, 1966. The questionnaires administered were regarding: (i) the family background; (ii) the child in the family; and (iii) problem behaviour. Percentages, mean, SD, and CR, were used to analyse the data.

The findings revealed that (i) normal school-going boys of seven, eight, nine and ten years of age manifested problem behaviour in various aspects of life; (ii) the problem behaviour total score of seven and eight-year-old groups differed significantly all throughout the year as far as teachers' observations were concerned; (iii) the whole period of seven to ten years was a period of learning the skills and habits of social life; (iv) the patterns of problem behaviour re-

lated to major areas did not show much changes for the age groups; (v) problem behaviour with reference to social standards was most common during the period under study; (vi) lying, irritability, quarrelling, fighting and teasing other boys were observed in all the age groups; (vii) seven-year-old group had specific problem behaviour of over-eating and being shy; eight-year-old group enjoyed urinating in public and nine-year-old group was observed to be selfish and ten-year-old group had more problem behaviours confined to age; (viii) seven-year-old and ten-year-old groups tended to have more problem behaviours related to home life specially at the beginning of the year; and (ix) eight-year-old and nine-year-old groups were similar in having comparatively less problem behaviours of emotional expressions.

298. PHATAK, P. and others, *A Study of Adjustment to Nursery School through Shifts in Behaviour, Dept. of Child Development, MSU, 1972.*

The main aim of this study was to identify the pattern of the adjustment process. The programme was undertaken with a view to answering the questions regarding the patterns of behaviour change of the children while attending school, different patterns of behaviour during the initial period of adjustment, their relationship with subsequent patterns, and the stability of behaviour patterns of individual children over a period of time.

The sample consisted of sixteen boys and eight girls who were admitted to the Chetan Balwadi at Baroda in June, 1968 and were attending the school during the period of the first observation session. The age of the children ranged from two years and six months to two years and eleven months, with the mean age of 2.76 years during the first series of observation. Out of these twentyfour children, fourteen were first born, seven were second born and of the remaining three, one each was third, fourth and fifth born. The children were observed longitudinally during three significant periods of schooling. The first observation was done during the second week of schooling. The second one was done before Diwali vacation and the third one was done before the summer vacation. Percentages and Cochran's Q test were applied to analyse the data.

The findings revealed as follows: (i) most of the children expected family members to be around in the beginning, and these children went through a stage of not being spontaneous in their interaction with other children or being independent but isolated; they ultimately developed self reliance; (ii) within a period of

three months of schooling, children built easy communications with teachers and had become independent; (iii) by the end of nine months they became very friendly with the teachers, accepted other children as a part of their society and were quite independent and relaxed in school; (iv) most of the children when they first came to school either avoided teachers or were indifferent to them or considered them as strangers; (v) children either did not want to be in school or were quite indifferent to school or perceived school as extension of home situation; (vi) some children showed positive aspects all throughout while some showed negative aspects all throughout; (vii) very few children shifted from positive to negative aspects of adjustment in different areas; (viii) majority of children moved on in their attitudes from negative to positive; and (ix) probably the individual differences in shifts towards positive attitude might be related to the basic differences in the behaviour pattern.

*299. PRABHJOT KAUR, *A Career Study of Higher Secondary Girls of Delhi with reference to a Career Planning Programme for Them*, Ph.D. Edu., Del. U., 1976.

The important objectives of the study were: (i) to investigate the relationship between career patterns and the factors included in (a) individual's characteristics and experiences and (b) individual's personal situation; (ii) to investigate the relationship between the career patterns and other social and environmental factors. The hypotheses formulated were: (i) differential trends or movements in the career patterns in each of the three vocations of clerical, nursing and teaching are identifiable in respect of the girls working in Delhi; (ii) an individual's intelligence, scholastic achievement, parental background and other personality and environmental characteristics are related to the career patterns; and (iii) trends to regress toward for better occupational levels of parents or guardians are identifiable.

The sample selected consisted of seventyfive nurses, seventyfive teachers and seventyfive clerks; but only 163 girls took part in the study. Their academic qualification was higher secondary pass from Delhi. The tools used to collect the data were: (i) an information blank/schedule and three oral questions; (ii) the Raven's Advanced Progressive Matrices; (iii) the Nemaun Kohlstd's Test for Introversion-Extroversion; and (iv) a questionnaire. The data were analysed using t test.

The important conclusions of the study were: (i) The three groups differed significantly from each other, in three determinants of career patterns, viz.,

age, permanent work period and intelligence. (ii) Nurses and teachers differed significantly from clerks in career patterns, in measures of permanent jobs and initial jobs. (iii) The findings established the existence of trends in terms of permanent, temporary or initial work periods in the three vocations. (iv) The relationship between intelligence and career patterns did not reach the highest acceptable level of significance, but the trend suggesting an inverse relationship between the two variables was present. (v) Extraversion scores were related to each other in all the three vocations under investigation. (vi) There was little evidence to relate career pattern with scholastic achievement. (vii) There was evidence of a relationship between career patterns and environmental factors, viz., parental background and present living conditions; the third environmental factor, i.e., type of school attended, had significant relationship with the career patterns. (viii) There was a significant evidence that nurses and teachers as a group seemed to occupy higher level in comparison to clerks in vocational categories.

*300. REDDY, N. Y., *Adolescent Adjustment in Relation to Home Environment*, Ph.D. Psy., Osm. U., 1966.

The important objectives were: (i) to find out the relationship between fathers' attitude and their sons' adjustment behaviour in different areas such as personal, school, home and heterosexual dealings, and (ii) to find out the relationship between bio-social variables and adolescent adjustment.

The sample consisted of 1280 adolescents, ranging in age from fourteen to twenty years, of the schools and colleges of Hyderabad and Secunderabad in the year 1964-1966. The tools administered were: (i) Adolescent Adjustment Inventory; (ii) Home Background Survey; and (iii) Parental Attitude Survey. The bio-social variables studied were: (a) age of the subject; (b) ordinal position; (c) socio-economic status of the family; (d) size; (e) type of the family; (f) family outlook; (g) family mobility; and (h) broken home. The data were statistically analysed.

The important findings were as follows: (i) Conflicting attitudes of extreme nature on the part of parents caused significant trends of maladjustment in the children. The subjects belonging to radical fathers were better adjusted in many of the areas of adjustment than those who came from conservative homes. (ii) Among the seven age groups of subjects, the seventeen, eighteen and nineteen-year age groups revealed significantly more personal maladjustment than the subjects in the early age groups. The late

adolescents were more prone to problem behaviour than the early adolescents. The subjects in the twenty-year age group were found to be more free from problems than those in all other age groups. The subjects in lower age groups tended to reveal maladjustment with respect to heterosexual relations. In the areas of 'home' and 'school', maladjustment increased with age. The higher the age the greater was the maladjustment. (iii) The first born and the second born were found to be the most maladjusted and the least maladjusted respectively. (iv) The highly orthodox group was the most maladjusted closely followed by the other two groups, conventional and somewhat orthodox. (v) A direct relationship was found between the level of adjustment in the children and the education of the parents. Higher the level of education of the parents the better was the degree of adjustment in the sons. (vi) The 'father-high and mother-low' group was found to be better than 'father and mother equal' and 'mother-high and father-low' groups.

301. REDDY, R. K., *Development of Vocational Sense among Adolescents — Socio-Economic and Rural-Urban Variations in the Development of Vocational Sense among High School Boys*, Ph.D. Psy., Osm. U., 1974.

The objectives of the study were: (i) to investigate the nature of vocational development in the high school boys of grades IX and XI in the southern states of India; (ii) to investigate possible rural-urban and socio-economic variations in the pattern of vocational development. Hypotheses tested in the study were: (a) percentage of subjects making occupational choice would increase with increasing grade level; (b) the number of subjects choosing occupations which are within the reach of their achievement level and intellectual level are likely to increase with increasing grade level; (c) more number of subjects are likely to choose occupation which are in agreement with their value orientation and self-concept; and (d) there are likely to be rural-urban and socio-economic variations in the emergence of vocational development pattern.

A sample of 1671 subjects comprising 948 urban and 723 rural high school boys was selected. As many as 568 subjects did not express any occupational choice and hence were excluded. Tools administered for data collection were: (i) a questionnaire constructed by the investigator; (ii) the Raven's Standard Progressive Matrices Test; and (iii) the Allport's Study of Values.

The major findings of the study indicated that (i) in case of urban subjects the percentage making occupational choices increased with grade

level; (ii) middle socio-economic group showed knowledge of distinctively higher number of occupations than high or low socio-economic group; and this knowledge increased with increasing grade levels; (iii) there was little increase in realism with increasing grade levels in relation to one's past achievement; (iv) the realism was found to be more in urban and upper socio-economic groups; (v) there was clear developmental trend with increasing grade levels with regard to choosing right occupations in terms of their intellectual capacity; (vi) there was increasing integration between subjects' value orientation and their choice of occupation with increasing grade level and socio-economic status; (vii) there was increasing integration between subjects' self-concept and their chosen occupation with increasing grade level and socio-economic status; and (viii) urban subjects chose occupations which were in agreement with their self-concept.

302. ROY, A. K., *Development of a Student Adjustment Questionnaire (SAQ) and a Study on the Relationship of Adjustment to Academic Achievement*, D.Phil. Psy., Cal. U., 1969.

The study aimed at comparing two groups of pupils, namely, low achievers and high achievers on certain aspects of adjustment. The investigation was undertaken with a view to examining the relationship between adjustment difficulties and the scholastic achievement of the pupils. The investigation consisted of two parts. The first part involved the construction of a Student Adjustment Questionnaire (SAQ). The second part of the study involved comparison of low achievers and high achievers.

The sample consisted of 194 low achievers and high achievers of both series. The low and high achievers were fourteen to seventeen years of age, of class X of two higher secondary schools and were almost similar in education, cultural and socio-economic background. Statistical measures of mean and t test were used for analysing the data. The Student Adjustment Questionnaire was developed through the diagnostic questionnaire method of Woodworth. The questionnaire, in the final form, consisted of 100 items which were equally divided into four areas of adjustment, viz., home, health, social, and emotional. The item analysis was done on the data obtained from 300 randomly selected pupils, both boys and girls, of fifteen higher secondary schools. The split-half reliability coefficients were found to be 0.85, 0.82, 0.82, 0.88 and 0.96 for home, health, social, emotional and general adjustment, respectively. The coefficients of intercorrelation were 0.29 for home and health, 0.17 for home and social, 0.23 for home and emotional,

0.02 for health and social, 0.30 for health and emotional and 0.43 for social and emotional. The questionnaire was validated in two ways, i.e., by face validity and through the selection of well adjusted and poorly adjusted groups of pupils by the teachers and a determination of the degree to which the questionnaire differentiated between them.

The major findings were: (i) the five adjustment variables yielded significant differences between the groups of low achievers and high achievers of either sex and indicated that low achiever groups were significantly more unsatisfactorily adjusted than the high achiever groups. (ii) Both male and female low achievers were significantly unsatisfactorily adjusted to home life and physical conditions and were significantly submissive and retiring, emotionally unstable, and had significantly unsatisfactory general adjustment status. (iii) The low achievers had poorer overall adjustment compared with the high achievers. The high achievers were well adjusted to their home, health, social and emotional life and had satisfactory general adjustment status as well. (iv) The findings of the study pointed to the efficacy of the Student Adjustment Questionnaire as an instrument of assessment of personality adjustment.

*303. SAIL, S. S., *Nutritional Studies on School Children*, Ph.D. Food and Nutrition, MSU, 1970.

The study attempted to investigate the efficacy of school lunch based on locally available and cheap foods in improving the nutritional status of school boys.

The study included (i) comparative studies, (ii) studies on the impact of the school lunch programme and (iii) studies on the impact of CARE lunch programme. The respective samples consisted of fiftytwo boys aged six to twelve years belonging to the low-income group in rural areas of Raipura and twentyone belonging to high-income group in Baroda; forty boys in the fed group and twelve boys in the control groups in first series and twentyfive boys in the fed group and twelve boys in the control group in second series; and fifty subjects each were used in the fed and control groups and twentyone subjects were used in the studies on the comparative utilisation of carotene in leafy vegetables and vitamins. The information on dietary intake was obtained by an oral questionnaire. The adults were asked to give information on the quantities of different foods consumed and the nutritive value of the diet was calculated from previous data.

The major findings were the following: (i) The

two groups differed appreciably in physical stature. The weights of Raipura children were fifteen percent less than those of upper class children. Heights were less by four or five percent on an average. (ii) In the case of Raipura children the typical meal consisted of a main dish based on cereals and a side dish made of either pulse or vegetables. The upper class had more milk and curd. (iii) The consumption of cereals was about the same in both groups, but that of all other legumes was more in the upper class. (iv) The upper class diet provided about seventyfive calories per square metre per hour or about seventy-five percent over and above the expected basal metabolic rate while in the case of Raipura children the diet provided only fifty-five calories per square metre per hour. (v) The group supplemented with leafy vegetables showed an increase in the serum carotene from nine to twenty Kg. per 100 ml. (vi) Vitamin B₁₂ supplementation with or without the intrinsic factor was found to have no effect on either haemoglobin or serum protein and albumin.

304. SARASWATHI, L. S., *Jobs held by Home Scientists and the Competencies needed on the Jobs held as perceived by the employed Home Scientists and their Employers in the District of Baroda*, Faculty of Home Science, MSU, and Institute for Techno-Economic Studies, Madras, 1973. (ICSSR financed)

The major objectives of the study were (i) to identify the jobs on which home scientists were employed at the time of the study and to estimate the number of home scientists on the jobs in different sources of employment in the district of Baroda, and (ii) to determine the competencies needed on each of the jobs held by the home scientists and their employers in the district of Baroda.

Identification of jobs on which the home scientists were employed was done by contacting 1408 heads of the institutions and organisations constituting the four major sources of employment, namely, government departments (91), industries (488), trade and commercial institutions (196), educational institutions (586) and miscellaneous (47) through a proforma prepared. A total of 128 home scientists and fifty-seven employers were located and they constituted the universe for determining the competencies needed on the jobs. The tool used was a checklist of tasks (task-list). The data were collected by individual and personal administration of the tool. One hundred and sixteen employed home scientists and fiftyseven employers responded. The data were analysed by applying t test.

The salient findings were : (i) Almost all the tasks listed in the task-list were perceived to be part of the job of the home scientists by those employed as teachers and research workers, and those others on miscellaneous jobs. The only exceptions were assistant lecturers in colleges and secondary school teachers. (ii) Statistically significant differences in proportions for several categories of items of tasks were found for the jobs of the assistant lecturers in college and secondary school teachers with the employers' perception proportions higher than the employees' in the former and vice versa in the latter. (iii) The high competency — perception-proportions indicated that a majority of the items included in the competency tests were perceived by the two sets of respondents (teachers and research workers, and those on miscellaneous jobs) as required on the job, with an exception of those on the jobs of the assistant lecturers in colleges and teachers in secondary schools.

305. SETH, S., *The Adjustment Problems of Female Adolescents (A Sociological Study of 500 Female Teenagers of Lucknow City)*, Ph.D. Soc., Luc. U., 1970.

The purpose of the investigation was to study the problems and worries of female teenagers of Lucknow City. The main aims were to study (i) adjustment problems in the family; (ii) adjustment problems in the school; (iii) adjustment problems related to sex; (iv) problems of personal adjustment; (v) problems of social adjustment; and (vi) problems of vocational adjustment.

The sample consisted of 500 female teenagers of schools selected randomly. The tool used for the data collection was an interview schedule. The interview schedule covered aspects of adjustment problems related to the family, school, sex, personal, social and vocational areas.

The major findings were : (i) The female teenagers had home, school, sex, personal, social and vocational problems. The reasons for these problems were found to be (a) the lag between physical and social development; (b) the emotional changes that occurred in this period; (c) the desire for activity and interest in peer group and in members of opposite sex; (d) tendency to substitute dependence with independence and self-control; and (e) the difficulty to reach and attain one's own philosophy of life. (ii) Although problems seemed to be common, the aspect of individual differences was found to be in operation. (iii) The individual factors of significance were found

to be age, religion, marital status, socio-economic status, and sibling position.

306. SHARMA, R. L., *An Investigation into the Personal and Sex Interests of School-going Rural and Urban Adolescent Boys of Hadoti Region*, Ph.D. Edu., SPU, 1975.

The main aim of the study was to assess the adolescents' maturity and adjustment on the basis of their personal and sex interests and further to make a comparison between urban and rural adolescents. The main hypothesis was that with the development of sex organs and secondary sex characteristics, the necessity for psychological adjustment to the problem of sex would arise.

This was normative survey and was confined to male students of class XI of Hadoti Region. The total sample was 4,670 students of which 2,245 were from rural areas and remaining 2,425 from urban areas. Specially constructed questionnaires were given to adolescent boys and their teachers. Formula for standard error of differences between the uncorrelated percentages was applied for statistical analysis of data.

On the basis of this survey it was found that (i) the interest and activities associated with the change in appearance were magnified through the pubertal bodily growth; (ii) the urban adolescents were of the opinion that social success depended upon appearance, while this view was not favoured by rural adolescents; (iii) the urban adolescents took comparatively more interest in writing their thoughts and feelings, a finding confirmed by the teachers also; (iv) as compared with rural adolescents, urban ones were more interested in independent life; (v) most of the rural adolescents indicated their interest in agricultural and teaching professions while most of the urban adolescents were interested in medical and engineering professions; (vi) the rural adolescents were sexually more excited than urban ones during conversation on sex and exposure to male nudity; (vii) on the other hand urban adolescents were more excited than their rural counterparts when exposed to female nudity and sexual scenes in movies; and (viii) urban adolescent boys wanted to be loved by girls more than the rural ones.

307. SINGH, R. P., *Interest Patterns of Successful Students in Different Courses of Study at the Secondary Stage in Uttar Pradesh (India)*, Ph.D. Psy., Luc. U., 1965.

The study aimed at (i) establishing and formulating some working proposition which related to the various aspects of interest, and (ii) understanding the

nature of interest and the various factors which affected its growth and development.

The sample consisted of 1,436 successful candidates of all the streams — arts, science, agriculture, commerce, etc., at the high school examinations. In order to determine the patterns of interest of students successful in different courses of study, an interest inventory was developed by the investigator. A total of 462 items were pooled in the following seven categories — (i) mechanical interest, (ii) business interest, (iii) scientific interest, (iv) aesthetic interest, (v) social interest, (vi) clinical interest, and (vii) outdoor interest. The final draft of the inventory contained 168 pairs of items. Chi-square test and Bhattacharya's method on measuring divergence between the two multinomial populations were used to determine the extent of sharpness of interest patterns for different courses of study.

The comparison of the two contrasting groups under each course of study brought out significant points in interest patterns under each course of study. It was found that (i) under 'literacy course of study' successful students were marked by a high score on the scientific and a low score on the business and the clerical interest categories; (ii) students successful in scientific course of study scored higher on the outdoor and lower on the business and clerical interest categories; (iii) the interest patterns of the successful students under the agriculture courses of study were marked by a high score on the outdoor, and a low on the business and clerical interest categories; and (iv) no specific pattern of interest emerged in case of successful students under the commerce course of study.

*308. *SUBRAMANIA, DANDAPANI, The Effect of a Group Guidance Programme upon the Academic Achievement of High School Underachievers, Ph.D. Edu., Mys. U., 1977.*

The study sought to determine whether or not high school male underachievers who participated in a programme of group guidance, counselling and remedial help achieve significantly higher on an academic achievement test at the conclusion of the counselling period in comparison with the control groups of non-counselled underachievers and normal achievers. It was also aimed to ascertain differences in achievement among counselled underachievers belonging to families of professional class, merchant class and clerical class.

The research population consisted of 650 students drawn from X standard English medium classes of twelve high schools in the Mysore City. An underachiever was operationally defined as one whose pre-

dicted achievement score on the basis of regression equation was 0.9 standard error of estimate above the obtained achievement score. The study had an experimental group of thirty underachievers (counselled), and two control groups one of thirty (non-counselled) underachievers and another of thirty normal achievers. The Group Test of Scholastic Ability (GTSA) standardised by the State Bureau of Education and Vocational Guidance and a battery of academic achievement tests covering mathematics, science and social studies at the IX and X standards were used for data collection. The programme of guidance and remedial help consisted of ten sessions with an initial meeting of underachievers and their parents, and activities like discussion of their problems, explanation of disparities between ability and achievement, presentation by counsellor of recorded talks on subjects like attention, interest, biographies of great men, aspiration and means of achieving them and so on. The data were analysed by employing analysis of covariance.

It was found that the academic achievement of underachievers in the experimental group was significantly greater than that of the non-counselled underachievers and normal achievers. There was no significant difference between the two control groups. The underachievers belonging to professional class families showed significant gain in academic achievement at the end of the programme from the underachievers belonging to merchant class and clerical class families, whereas there was no significant difference between the latter two.

309. *SUMATHYKUTTYAMMA, N., Science Interests of High School Pupils in Kerala and Factors Contributing to the Development of these Interests, Ph.D. Edu., Ker. U., 1973.*

The aims of the present study were : (i) to enquire into the science interests of the high school children with regard to different school subjects, science subjects, different units in each subject and their likes and dislikes of topics they already studied with reasons thereof; and (ii) to investigate into the various science competencies, viz., observing, classifying, calculating, and collecting data of the students. The study was conducted on a sample of 1000 students of standards VIII, IX and X of thirtysix high schools and 290 teachers. The data were collected by employing (i) a questionnaire-cum-inventory for the pupils; and (ii) a questionnaire for teachers.

The study revealed that (i) the science subjects got the third rank among the different school subjects; (ii) girls showed greater interest for botany, human physiology and astronomy while boys gave preference

to physics, chemistry and geology; (iii) among the eight units in physics, electricity ranked first and 'units of measurement' ranked eighth; (iv) among the seven units in chemistry 'laboratory activities' ranked first and 'acids and alkalies' ranked seventh; (v) among the eleven units in botany 'flowers' got first rank and 'stem' got last rank; (vi) among seven units in zoology 'birds' got first rank and 'amphibians' got last rank; (vii) urban pupils showed significantly higher preference for science than rural pupils; (viii) in physics, rectifying the defect of the eye using lenses, making model cameras and projectors ranked high among the interest in scientific activities; (ix) in chemistry oxygen preparation, answering questions about oxygen, studying life history of the scientist who discovered oxygen ranked high; (x) in zoology stages of evolution, observation of feeding, breathing, structural adaptation for locomotion and studying external details ranked high; (xi) in botany direct observation of natural phenomena, artificial setting, preparation of leaf album, and collection of leaf skeletons were the most liked activities; (xii) in human physiology, giving first-aid, knowing diseases and remedial measures, seeing blood circulation by means of film were the most liked activities; (xiii) the rank order of liking was botany, physics, chemistry while the dislike rank order was physics, chemistry and zoology; (xiv) there were significantly greater 'like' entries for botany, zoology, human physiology and chemistry while physics got significantly greater 'dislike' entries than 'like' entries; (xv) the main reasons for liking a subject were, ease, experiments, functions, processes, and application; (xvi) the main reasons for disliking were difficulty, fear, lack of new experiments, study of inanimate objects and bad teaching; (xvii) availability of material facilities, both at school and home, were mentioned by teachers to be main factors for promotion of interest in pupils; (xviii) the main factors that adversely affected interests in pupils as mentioned by teachers were discouragement at home, parents' ignorance and negligence, lack of facilities at home and school; (xix) scientists were the highest preferred group of greatmen and non-scientists group the least preferred; and (xx) the parental encouragement and home facilities were significantly related to the total science interest.

310. VARMA, V., *Frustration and Maladjustment of Retarded Adolescent School Students*, Ph.D. Edu., Luc. U., 1968.

The purpose of the study was to determine the conditions responsible for retardation. The main objectives were : (i) to investigate the state or the condi-

tion of adjustment in the high school failed students; and (ii) to find out how the high school failed students adjust to the situation of failure.

The sample of students was selected from those students who failed in the two 1960 and 1961 High School Board Examinations of U.P. In all 900 students were selected. The tools used for data collection were : (i) Jalota's Intelligence Tests, (ii) the Asthana's Adjustment Inventory, and (iii) a questionnaire.

The major findings were : (i) high school failed adolescent group as a whole was found to be of lower intelligence than the normal group; (ii) the main cause of failure as given by the whole group was physical illness and ill health; (iii) 'mental worry' was another cause of failure as given by the failed student group; (iv) the failed group was less adjusted than the normal group, girls were more adjusted than boys; and (v) quite a large number of the failed students suffered from tension, anxiety and mental conflicts.

311. WALIA, D., *The Gifted Adolescent and their Self-Concepts*, Ph.D. Psy., Pan. U., 1973.

The objectives of the study were : (i) to suggest an approach to identify the gifted adolescent with the help of verbal and nonverbal intelligence tests; (ii) to standardise a self-concept list for measuring perceived, ideal and real self-concepts; (iii) to compare the perceived, ideal and real self-concept of the gifted adolescents with those of the average; (iv) to compare the perceived, ideal and real self-concepts of males and females; (v) to compare the self-ideal discrepancies of the gifted adolescent with the average adolescents and of the males with the females; and (vi) to compare the self-real discrepancies of the gifted adolescents with the average adolescents and of males with those of the females. The following hypotheses were framed : (i) age and intelligence affected the self perception of the individuals; (ii) sex influences self-concept and perceived ideal discrepancies significantly; (iii) the gifted have higher ideal self and better self insight than the average; and (iv) the gifted have higher perceived-ideal discrepancies as compared to the average adolescents.

The sample was selected on the basis of verbal and nonverbal intelligence tests. It consisted of one hundred gifted and one hundred average subjects with an equal number of males and females whose age range was between fourteen and eighteen years. The sample represented the different schools and colleges in Chandigarh. The tools used were : (i) adaptation of the Wells' Modified Alpha Examination Form in English; (ii) the Jalota's Group Test of General

Mental Ability in Hindi; (iii) the Singh's Group Test of General Mental Ability; (iv) the Raven's Standard Progressive Matrices, sets A, B, C, D and E; and (v) the Self-Concept list (SCL).

The study revealed that (i) the factor of intelligence had a significant effect on the self-perception of the individuals and on the different dimensions of self; (ii) sex had a significant effect upon the self-ratings of the gifted and the average males and females; (iii) the interactions of intelligence and sex, intelligence and age, and sex and age, brought about significant variations in the self ratings of the subjects; (iv) gifted males were better adjusted as compared to gifted females and they had higher ideal self as compared to the average males; (v) gifted females had a higher ideal self than the gifted males and average females, but their level of aspiration was unrealistic and stood in their way of adjustment; (vi) the discrepancies between the perceived and ideal selves of the gifted females were higher than those of gifted males and average females; (vii) the correlations for the perceived and real self-concept ratings showed that the gifted females were not judged higher either by themselves or by others; (viii) the gifted and the average females did not differ significantly on their real self, though the differences were in favour of the average group; and (ix) on self - real discrepancies both the groups of gifted and average females did not differ significantly from each other.

*312. WIG, N. N. and NAGPAL, R. N., *A Study of Mental Health in Failing University Students, Postgraduate Institute of Medical Education and Research, Chandigarh, 1970. (ICMR financed)*

The objectives of the study were: (i) to study the incidence and nature of emotional ill health among the students who fail in the university examinations or dropout during the course of their study; (ii) to discover the different psycho-social factors associated with failure and dropping out; and (iii) to compare the findings in the successful and the unsuccessful students with a view to assessing the significance of emotional and psycho-social factors in determining their academic performance.

The study was completed in two parts. The sample consisted of 146 students failed in the annual examination of April-May, 1967, from faculties of arts,

science and commerce for part I. The sample for part II consisted of 1180 students of the above faculties. The tools administered on the above two samples were: (i) the Maudsley Personality Inventory; (ii) the Cornell Medical Index Health Questionnaire; (iii) a semi-structured questionnaire; (iv) interview on the model of psychiatric care taking; and (v) a structured questionnaire based on the findings of part I. The data were analysed with the help of t test and chi-square.

The important findings were the following: (i) The scores of two groups were significantly different at 0.05 level on the physical distress (A-L) scale of the Cornell Medical Index Health Questionnaire. (ii) The two groups were significantly different on mental health score. The differences were marked in the areas, namely, school adjustment and college adjustment followed by the areas of social adjustment and neurotic traits in childhood. Parental deprivation, parental attitude and sexual adjustment were found to be non-contributing areas. The successful students and the high achievers were significantly more represented in the lower age group. The students with better achievement in previous examination and with less incidence of failure did better at university examination. (iii) Among the high achievers there was significantly higher incidence of fathers with professional executive occupation and university/professional education. A high percentage of failing students listed their fathers as belonging to business occupations and having no formal education. In most of the cases the low achievers had fathers of agricultural background. (iv) The low and high achievers spent less time in extra curricular activities. No significant differences were found in the items on student satisfaction with teaching standard, adequacy of contacts with teachers, satisfaction with library, etc. Fifty percent of the high achievers were satisfied with their preparation prior to examination as compared with only thirty-five percent of the group which was later found to have failed. (vii) Only eight percent of the failing students and twelve to eight percent of third divisioners could predict their success correctly in contrast to seventy-four percent of the second divisioners and fifty-eight percent of the first divisioners. In the social relations, the failed students were more often reported as the extremes, either as social and mixing or as isolated and lonely.