CHAPTER II

SURVEY OF THE RELATED STUDIES

Studies on Professional Groups
(a) Studies Abroad
(b) Studies in India

Studies on Different Variables
(a) Studies Abroad
(b) Studies in India

General Conclusions
"Practically all human knowledge can be found in books and libraries. Unlike other animals that must start anew with each generation, man builds upon the accumulated and recorded knowledge of the past. His constant adding to the vast store of knowledge makes possible progress in all areas of human endeavour."

The above lines of Best emphasise on the survey of related literature. The investigator requires an adequate knowledge of close familiarity with the relevant literature. Familiarity with the literature in any problem area helps the researcher to discover what is already known, what others have attempted and what problems remain to be solved. Therefore, the reasons for emphasising on the survey of literature can broadly be enumerated as follows:

(1) To avoid duplication.
(2) To get benefit of similar research.
(3) Validation of the results.

Latest information about studies, already made by others, in the field of research with which the problem in hand was related, would have formed an integral part of the investigator's cognitive equipment. However, inspite of the best efforts, no study could be available either in India or abroad having direct bearing upon the present problem. On perusal, however, some studies, though not directly connected with the problem, are found, certainly, to have some bearing
on this project. An attempt has been made to make brief reviews of these researches and studies somewhat related with the topic. It is not feasible to enlist all the studies done in the field. Therefore, some of the important studies which are more relevant for the project are enlisted below:

I. STUDIES ON PROFESSIONAL GROUPS

Some of the important studies done on various aspects of the students of professional courses of Medicine, Law, Engineering and Education have been enlisted below with a view to find out which areas of research have already been explored and what further work needs to be done on the professional groups included in the present study.

(a) STUDIES ABROAD

Waggoner and Zeigler (1946)\(^2\) found that one of the important causes of failure at the university of Michigan Medical School was maladjustment. Some of the students who were not intellectually inferior failed because they were suffering from emotional troubles. All of the seven failing students exhibited signs of immaturity and tendencies of severe tension on Rorschach test. Five of them tended to be highly impulsive under stress and two withdrew from reality to a very great extent.

Molish, Molish and Thomas (1950)\(^3\) tried to find out whether a group of sixty highly intelligent fourth year Medical students possessed any specific pattern of Rorschach characteristics compared with various other groups of superior adults studied by other investigators. They found that Medical students resembled other superior adults in productivity,
intellectual drive and organisational energy, accuracy and originality of interest content but showed greater emphasis on Dd (rare detail) in mode of approach than did the members of other groups. They were found to be equal to the other superior members in their richness of sources of energy available for adjustment. Half of the group of Medical students were introversive, quarter extratensive and quarter almost ambi-equal.

4 Stubbs et al. (1951) attempted to find out the efficacy of the interview for the selection of Medical students at the State university of Iowa College of Medicine. A panel of five interviewers in the year 1948-49 and another nine interviewers in the following year was formed. The interviewers were of the opinion that the qualities of primary importance in the career of medicine were general alertness, ability to present ideas, self confidence, motivation for the earnestness. Other qualities which were considered important were emotional stability, judgement, perspective and independence of thought. It was suggested that careful interview ratings of characteristics might be of considerable help in selection of Medical students.

5 Burgess (1953) made an attempt to study over and under achievers in the Engineering curriculum. She employed Rorschach, MMPI, TAT, Rosenzweig Picture Frustration Test and Bernreuer Personality Inventory. It was found that Rorschach variables failed to discriminate significantly between the two groups on the TAT. Over achievers scored significantly
higher on achievement, aggression, status and self improvement needs. Under achievers scored significantly higher on dependency needs and needs to be more free of restraints. No significant differences were found when Rosenzweig MMPI or Bernreuter tests were employed. As a group over achievers were found to be more intellectually adaptive, less labile, more constricted and inhibited, more cautious and realistic in approach to Problems with greater need for achievement and self improvement.

Eron and Redmount (1957) made an attempt to compare Law and Medical students on three variables; general anxiety, cynicism and humanitarianism. The Law students scored significantly higher on anxiety and cynicism scales than the Medical students, but the two groups did not differ on humanitarian scale because they had similar mean scores and standard deviations on this scale.

Buhl (1958) in his report on 'Engineering Creativity, Qualities of the creative Engineering students' attempted to identify and understand the creative Engineer, differentiate the highly creative individuals from the less creative ones, and determine the attributes which appear pertinent to creativity. A group of 167 first term freshman engineers were used as subjects. The results showed a close correlation between creativity and scholastic achievement at the end of the college freshman year. Some correlation was found between creativity and mental ability as measured by the ACE test. It was pointed out, however, that a high mental potential does not necessarily ensure a high creative ability even though an individual with
high mental potential has a greater opportunity to exercise his creative ability. Creative individuals were found to differ significantly from the non-creatives in motivation and freedom of expression.

Stern and Scanlon (1958) studied the need pattern of Medical students. They used Activities Index for this purpose and found that students scored high on the need to achieve and on a set of needs related to intellectual interests and intrapersonalism. Freshmen in two medical colleges scored high on a scale measuring need to change but they obtained relatively low scores on an exhibitionism scale and several scales related to the concept of autonomy. The authors concluded that there is a definite relationship between measured personality characteristics and choice of speciality.

Gropper and Fitzpatrick (1959) found that the socio-economic background of Law students was similar to that of students entering Medical, Engineering and Dentistry. In contrast Warkov and Zelan found them higher in Social status than non-Law oriented students. The contradiction in results may be due to the sample difference. This research suggests that factors in the home environment are significant variables in the students' decision making.

Gee (1960) found some personality differences among Medical students' group on the study of values. The students scored higher on the theoretical scale and lowest on economic scale. The political scale was scored second high and social
scale was one of the two lowest. Gee also found interesting differences in the major value orientations among the students choosing various specialities, with the greatest diversity appearing on the aesthetic and economic scales.

Gorden and Mensh (1962) studied the changing values of Medical school students through a value test of Gordon's Survey of Interpersonal Values (SIV) administered to all students (N=222) in the first to fourth year classes in a large Medical college. A predicted increase in Benevolent, in the sense of wanting to help other people becomes increasingly important to the Medical students. An increased valuing of independence as the student advances through medical was also found. Moreover, they observed significant increase in support and recognition and a significant decrease in conformity.

Johnson and Hutchins (1964) found that out of more than 75,000 students admitted to 72 American Medical schools between 1949-58, 11,152 failed to graduate in four academic years after matriculation and 6,556 failed to graduate at all. The 9 percent annual loss from medical schools contrasts with 40 percent in Law, 44 percent in Nursing, 51 percent in Engineering and 20 percent in Theology. Approximately 5 percent of the attrition is attributed to academic and 4 percent to non-academic causes. There is no perceptible difference in motivation between students who make regular progress and those who are delayed or dropped.

Philips (1964) investigated the self-concept of
some selected groups of training college students in order to discover what relationship might exist between them and other variables in the teacher-training situations. The results indicated that women tended to have a higher ideal self than men and to be less self accepting. No significant difference was found in matured and less matured groups. No clear relationship was established between students' self concept and social emotional climate surrounding.

In studies of Lief and others (1965) academically successful students have revealed, among other things, frequent manifestations of inhibition and rigidity in the Rorschach Test and more frequent evidence of abnormal adaptation to medical school among the low successful group; a significantly greater intellectual curiosity in high success group; and a steadily declining identification with medicine in the low success group, but these individuals seem far less able to deal with their own feelings than the high achievers, who often use their drive to succeed to augment their performance rather than allowing it to impede it.

Romine and Gehman (1966) carried a study on 86 freshman Engineering students and 34 senior male Engineering students enrolled in Duke University college. They attempted to determine whether there are any differences in the degree and kind of tension as reported by groups of freshmen and senior Engineering students or not. The study did not reveal any statistically significant difference between freshmen and seniors with regard to the degree of total tension. But
significant difference was found between the mean score with regard to the kind of tension and the type of situations which produce tension.

Fred and James (1967) compared high self accepting group and low self accepting group of freshmen entering the college of Education at the university of Maine on an anxiety scale and other cognitive style measures. The low accepting group manifested tendencies towards ego weakness, shyness, paranoid tendency, guilt proneness, low integration and high ergic tension. The high acceptance groups were found to have higher preference for complexity and, therefore, may be somewhat more creative or at least more likely to be creative.

Grant et al. (1967) made a descriptive study of Medical students. Prior to the admission to the college of medicine, Ohio State University, each student in the 1963 and 1964 was asked to complete a biographical questionnaire called an Entrying Resources Inventory. The O.A.I.S. Scale had been used as the creative measure for the study. A biographical study of the two groups of high and low creative students was made.

The study distinguished high from low creative Medical students by broken homes life; greater preference for movies, modern music, serious books, bridge playing and serious hobbies. High creatives sought challenge, academic or research careers, verbal and imaginative expression. Low creatives were found to have higher motivation, more economic
and family interests, were often oldest children and head for general practice. Independent original explorations characterised high creatives while traditional, authoritative explanations satisfied the less creatives.

18 Owens (1969), conducting a follow up study of 1500 Engineering students originally administered four tests of mechanical creativity during 1955, tried to study which personal (non-cognitive) and environmental characteristics facilitated or inhibited the expression of this creativity in the mean time. In 1964 Ss completed inventories of personal and environmental characteristics and scores were correlated with the creativity criterion. Results from this broadly suggest that creative person in Engineering is cognitively complex and can integrate more inputs than his less creative fellows.

19 Walsh and Palmer (1970) compared Personality traits of 140 Law and non-Law oriented students. The aim of the study was to investigate the differences between Law, Pre-Law and Non-Law oriented students on 14 personality variables as measured by the Edward Personal Preference Schedule (EPPS).

The findings showed no difference between the groups on 11 of the 15 Personality variables. The test for the main effects of groups, however, was found to be significant on four of the Scales, Intraception, Dominance, Abasement and Hetrosexuality. The significant findings on the
Intraception scale suggest that the undergraduate students in Pre-Law may be more concerned with self motives, feelings and understanding others than the third year students. The significant results on the Dominance Scale also suggest that both the undergraduate students in Pre-Law and third year Law groups tend to have a higher need for dominance than the others. Thus, these individuals tend to persuade and influence others as well as seek leaderships on abasement scale. It was also found that the Non-Law oriented undergraduate students tend to be more self-critical and self-blaming than students in other groups.

(b) STUDIES IN INDIA

Shrimali (1951) studied the adjustment Problems of 50 pupil-teachers of Vidya Bhawan Govind Ram Saksaria Teachers' College, Udaipur through employing a questionnaire to elicit responses. The present study reveals that there is a considerable maladjustment among teachers. 40 percent of the population felt that teaching is not sufficiently enriching for them and teaching demands too much sacrifice from them.

Adaval (1952) was probably the first to carry out a comprehensive investigation on the personal qualities of teachers under training. The qualities of student teachers measured in this study were: (a) Motive of student-teachers in joining the profession, (b) Physical health and fitness, (c) Intelligence, (d) General knowledge, and (e) Aptitude for Teaching. The methods employed were Questionnaire and
Tests. The number of cases on whom tests and questionnaires were administered ranged from 306 to 669. The results showed that the first six motives having the highest frequency and percentage of student-teachers mentioning them for joining the profession of teaching were ranked as follows:

1. Wanted to acquire more knowledge, 2. Loved to teach, 3. Liked children, 4. Public service, 5. Loved cultural life, and 6. forced by circumstances. The level of general knowledge was found to be rather low. The mean I.Q. on the Otis Self Administering Test of Mental Ability was 91.35 with a S.D. of 9.28. It was also found that majority of the students in training colleges did not have aptitude for the teaching profession.

Rao (1963) investigated the role of certain aspects of personality and patterns of academic adjustment in scholastic performance. He used the Academic Adjustment Inventory, the Shri Venkateswari University Personality Scale and an inventory to study students' opinion on three hundred and five subjects comprising three groups viz. over, under and normal achievers in professional group of Engineering and non-professional group of Art and Science categories to study academic adjustment, sense of responsibility, moral and neurotic difficulties, achievement and morale of the students. He found that the high and low achievers did not show significant difference in general mental ability, the level of academic achievement was positively related to academic adjustment and differences in achievement were found to be
significantly related to the considered aspects of personality like neurotic difficulties, morale and sense of responsibility.

Kakkar (1965) identified the problems of teacher-trainees out of which 40 were men and 35 were women of Government Training College, Jullundur. He found that the total number of problems were same in either sex. Women trainees experienced more problems in the area of Emotional, Personality, Academic, Dissatisfaction with the present training course, Health and Social but men trainees were found to have more problems in the areas of Family, Sex and Marriage, Economic, concern for Social ills and Vocational.

Murthy Narayan (1965) attempted to test the usefulness of psychological test procedure in the assessment of the candidates' suitability for professional education. The study was made on 86 Medical students out of which 44 were boys and 42 girls with an average age of 20.4 years and an average education of intermediate science. He used tests i.e., Superior Adult, Decoding Test, Cancellation Test and Group Rorschach Test. From these tests seven scores were derived which were divided into scores on cognitive measures and scores on personality measures. These scores were compared with the final grading arrived at on the basis of academic records, biographical information, interviews, fields and knowledge tests used by the institution for selecting candidates which was found to be elaborate and time consuming. The correlation arrived was 0.6327. Thus the use of these psychological tests seems to be short procedure to yield
fairly good picture of the individuals being tested as to their intellectual capacities and an assessment of personality factors.

Suraj (1965) tried to find out the relationship existing between teacher-trainees' intellectual efficiency, self acceptance and teaching skill. The study was conducted on a sample of 400 teacher-trainees. He used the California Psychological Inventory which gives Intellectual Efficiency (I.E.) and Self Acceptance (S.A.) Scores, and Teacher Quality Rating Form which gives twelve sub scores of teachers' qualities. It was found that the coefficient of correlation was significant between IE and TS with respect to predictive value. The predictive value of IE for determining teaching skill was found to be much more than that of SA. The coefficient of determination suggested that most of the variance in TS could be attributed to, or associated with, variance on teaching effectiveness (TE) and only a little of it to the variance in SA.

Deva (1966) selected a set of predictors with a view to using them to prognosticate teaching efficiency and developed an instrument for measuring teaching efficiency. He used Jalota Group Test of General Mental Ability, the Washburne Social Adjustment Inventory, the Saxena's Vaktitva Parakh Prashnavali, the Kuppuswamy's Socio-Economic Status Scale and a weighted aggregate of divisions obtained at the high school, intermediate and first degree examination on 546 student-teachers of six teacher training institutions in
Western Uttar Pradesh. A Student-Teacher Rating Scale was constructed to provide the criterion measure of student-teaching. All the correlations between predictors and criterion scores were found significant at .01 level.

27 / Mathur (1966) sought to prepare an intelligence scale and establish norms so as to facilitate a comparative study of levels of intelligence of entrants in Engineering, Medicine, Law and Diploma in Engineering, and Teaching. He used this test on entrants to professional courses and comparison of the groups with average ability was made. The mean of I.Qs of entrants to Engineering, Medicine, Diploma in Engineering, Law and Teaching courses were 117, 111, 107, 102 and 101 respectively.

The study revealed that students admitted to various professional courses were not necessarily of high intellectual ability. Instances were not rare when the investigator found that students of low intellectual ability had secured admission to courses like Engineering and Medicine.

28 / Deb Maya (1968) attempted to find out the personality traits which have important contribution to success in Engineering profession. Conclusions were drawn from the responses of about 300 successful Engineers. It was found that the personality traits - extroversion, dominance, absence of neurosis, sociability, self sufficiency, self confidence and intelligence are necessary for succes in Engineering profession.
Pal (1968) compared the personality patterns of students in the four professions i.e., Engineering, Medical, Law and Teacher Training through using Allport Vernon Lindzey Study of Values, the Saxena Adjustment Inventory, the Rorschach Ink Blot Test and the Thematic Apperception Test on 50 students in final year of their training from each of the four professional groups. This comparative study of personality patterns of the four groups of professional students revealed that Engineering and Medical students have definitely different patterns, while there were more similarities than differences between Law and Teacher-Training students. Significant differences were found among different groups on majority of the personality variables. The Engineering students were found to be superior in the intellectual level, on imaginative variable, economic and aesthetic scales. The Medical students scored the highest on creative potential, on language variable, Student teachers exhibited significantly higher score than the Engineering and Medical students and with Law students, political value variable was followed by economic value.

Marked anxiety was not indicated by any of the groups. However, Law, Medical and Teacher-Training students showed tensions, frustrations and conflicts to some extent. In terms of adjustment the group of Engineering students was by far the best adjusted, while the other three groups fell safely within normal range.

Verma (1968) investigated to find out whether
Teacher-Training made a favourable impact on the values, attitudes, Personal Problems and adjustment of 546 randomly selected student teachers of B.Ed. course from Rajasthan. Findings of the investigation revealed that student teachers had lost significantly in theoretical and economic values which meant that their interest in business and financial matters had been reduced as a result of training. In aesthetic values there had been significant improvement but teacher-training had neither improved nor reduced in the area of social and political values. Impact of teacher-training programme on the attitudes of student-teachers towards children and school work had been considerably favourable. Teacher-training had significantly reduced the problems concerning home, family, religion and occupation. As a result of training they had shown a significant loss in health adjustment but improvement in social, emotional and occupational adjustment.

Misra (1971) conducted a study upon sixty high and low achieving Engineering students at the Indian Institute of Technology, Kharagpur. He tried to find out whether, and to what extent, the non-intellectual and personality factors enabled one to discriminate between the high and low achievers in Engineering education. Eight Psychological tests were used. Two striking features of the analysis of discrimination were (1) intelligence test scores did not discriminate the high and low achievers in Engineering whereas (2) the scores in Neurosis, Emotional balance and Anxiety did discriminate
them. It revealed that after the assessment of the intellectual requirements, a segregation of entrants into an Engineering institution should be based upon the relevant non-academic and personality traits in the individuals and suitable steps should be taken to facilitate their proper development.

Indian Council of Medical Research (1972) made a survey of socio-economic status of Medical students belonging to several medical colleges representing different geographical regions of our country. Most students were from urban areas and were unmarried. Approximately two thirds of the students came from families of the low income group. Guardians of most students belonged to technical professions or administrative services, very few being agriculturists. Thirteen percent of the guardians were reported to have incurred debts for supporting their wards. A little less than half of the students had expressed dissatisfaction with regard to the present curriculum. Regarding the methods of assessment, majority of the pre-clinical students appeared to be satisfied with the methods but more than half of the clinical students were dissatisfied. Majority of the students had expressed a need for more opportunities for practical work during the internship training.

Indian Council of Medical Research (1974) made a follow-up study of the students admitted to St. Johns Medical College and the study was carried out on the basis of the students' performance in the pre-university (PUC) and the entrance examination as well as their performance on some
psychological tests.

The findings of the study indicated that the predictive validity of psychological tests was significantly high in forecasting academic success and training wastage. As compared to psychological tests the validity of PUG performance was significantly low in predicting academic success. The validity of entrance examination came in between that of psychological tests and PUG performance. The coefficient of multiple correlation and regression analysis revealed the combination of psychological tests and entrance examination had significant precision of prediction at each and every stage of M.B., B.S. course.

Goyal (1974) aimed at studying the personality correlates of creativity in Secondary school teachers under training. The study also determined relationship of creativity with teaching success. The sample of the study consisted of 500 student teachers (male and female) enrolled in five training colleges of Punjab. The tools employed were the Cattell's 16 PF for measuring personality factors and the Torrance Test of creative thinking both verbal and figural for assessing creativity and its dimensions.

He observed that highly creative persons did not enter the teachers-training colleges, therefore, only slight personality differences existed between high and low creative student teachers. High creatives (females) tended to be victims of self-conflict. They were moralistic and socially precise,
and, at the same time, socially bold and were not having inhibitions. High creative science group was found to be characterised by higher guilt proneness and higher strength of self-sentiment.

35 Gopal (1975) sought to find out certain differentiating Personality variables of creative and non-creative science and Engineering students. The sample was drawn from Kurukshetra University and one from each of Punjab and Uttar Pradesh. The age limit of the students in the sample ranged from eighteen to twenty one years. The Wallach-Kogan Tests of Creativity was employed for locating creative and non-creative students. The Cattell's sixteen Personality Factor Questionnaire was also used to measure personality factors.

He found that creative Engineering students, in comparison to their less creative peers, were more reserved, emotionally stable, assertive, sober, expedient, venture-some, tough minded, suspicious, imaginative, shrewd, experimenting and self sufficient. The non-creative Engineering students were found to be more outgoing, affected by feelings, humble, happy go lucky, conscientious, shy, tender minded, trusting, practical, forthright, conservative and group dependent. He further found that the creative science students were more insightful and better understanding than creative Engineering students. Non-creative science students possessed more organisational ability than non-creative Engineering students.

36 Singh (1975) proposed to study the college
environment and students' Personality in Medical Education. The study was conducted on a random 'Cross Section' sample of 505 Medical students and internees studying in five Medical colleges in three states of northern India. The tools employed were GCQ Scale, the Socio-Economic Status Scale, the Allport-Vernon-Lindzey Study of Values, the McClelland's n-Achievement Test, the Cattell's IPAT Anxiety Scale, and the Mooney Problem Checklist.

The significant findings of the investigations were: (1) Medical students suffered from moderate degree of anxiety, (2) theoretical and social values were found to be the most dominant and religious values the least dominant in the prevailing value system, (3) high degrees of anxiety and worries about academic and non-academic activities was common characteristic of the Medical students, (4) low propriety characteristics of college environment tended to give rise to problems among Medical students regarding social and psychological relations, personal and psychological relations courtship, sex and marriage, home and family, adjustment to college work, and vocational and educational prospects in future.

Patel (1977) proposed to study Achievement Motive, Anxiety, Performance at the University examination and Socio-Economic Status of Student teachers in the college of Education in the State of Gujrat. A total of 976 student teachers (both males and females) from thirteen colleges of Education formed the sample. The Thematic Appreception Test, the SES Scales for rural and urban settings and an anxiety scale were used.
as tools in the study.

Some of the major findings were; (1) As many as 12.9 percent student teachers had high anxiety, 64.8 percent had normal anxiety and the rest had either low or very low anxiety, (2) the mean performance of the high and low anxiety groups was 47.6 percent and 50.2 percent respectively, (3) there was a significant positive relationship between n Ach and performance, n Ach and SES, and SES and performance, (4) the relationship between anxiety and n Ach was negative but not significant.

Singh (1977) made an attempt to investigate into the psychological make up and sociological background of creative and non-creative student-teachers. The present study was designed to compare high and low creativity groups of student-teachers in terms of value orientation, personality adjustment, teacher attitude, family background, age, sex, residence (rural and urban), material status, religion and caste.

The sample consisted of 442 B.Ed. students in the city of Lucknow. The tools used in the study were the Torrance Test of Creative Thinking, the Ojha Study of Values, the California Test of Personality, the Minnesota Teacher Attitude Inventory etc. The study revealed that high creativity among student-teachers tended to go with higher economic value, better personality adjustment, better family background and urban living. Low creativity, on the other hand, seemed
to be associated with higher theoretical value, poorer adjustment, poorer family background and rural living. Teacher attitude, Sex, Marital status, Religion and Caste did not seem to have significantly differential effects upon high and low creativity among student teachers.

Sharma (1978) made a comparative study of adjustment problems of Professional and non-Professional college students in different areas of adjustment. The sample of the study consisted of 510 cases of non-professional and 520 cases of professional college students from six institutions of Meerut University. The adjustment inventory for college students (Sinha and Singh) was administered to non-professional (Arts, Science and Commerce) and professional (Law, Teacher Training, Medical and Engineering) college students.

The investigation revealed that (1) the non-professional college students face more adjustment problems than professional college students in the area of Home adjustment. No significant difference in their adjustment problems was found in Health; Social; Emotional and Educational areas. (2) Engineering and Medical students have approximately similar adjustment problems in Home, Health, Social, Emotional and Educational areas. (3) Teacher Training students have greater adjustment problems than Engineering in Home and Health areas while Engineering students have greater adjustment problems than Teacher Training in Educational area. No significant difference exists in adjustment problems in both groups in Social and Emotional areas. (4) Law students have better adjustment than Engineering in
Social and Educational areas while they have poor adjustment in Home area but no significant difference in Health and Emotional areas. (5) Medical students have more adjustment problems than teacher training students in Educational area while teacher-training students have more adjustment problems in Home area than Medical students. Both these groups have no significant difference in their adjustment problems in Health, Social and Emotional areas. (6) Medical students have more adjustment problems in Social and Educational areas than Law students but Law students have more problems in Home area than Medical students. No significant difference exists in adjustment problems in Health and Emotional areas in these groups. (7) Teacher-Training students have greater adjustment problems in Health and Emotional areas than Law students. No significant difference exists in adjustment problems in Home, Social and Educational areas with respect to both these groups.

Sinha and Verma (1979) compared personality structure of the Professional and non-Professional students. The present study aimed at bringing out the differences in personality based on Rorschach responses of students of Medical college and Arts college. A matched group of 15 students was selected from the various faculties of Post graduate arts departments of Ranchi University. The groups were matched on sex, number of years of college education and socio-economic status. The Rorschach Ink Blot Test was administered individually to each student with instructions
given according to Kloffer and Kelly. The results revealed that Medical students showed better adjustment and greater sense of security than Art students. The results indicated that even during the training period the differences in the personality structure exist between the Medical and Arts students.

On perusal of the studies done on different professional groups of Engineering, Medical, Law and Teaching both abroad and in India, the following salient features emerge in relevance to the present study:

(1) Some studies were reported to have been done on the students of different professions of Engineering, Medical and Teaching but very little work appears to have been done on the students of Law. On Teaching students more studies were done in India than in other countries.

(2) These studies ranged from Sociological and Educational Surveys and Opinionnaires to Personality studies investigating into socio-economic status, Problems, causes of failure, interest patterns, personality characteristics (relating to both cognitive and non-cognitive factors) of the students and determining criteria of selection into these professions etc. Both individual and comparative studies mostly on two or three of the four professions under study have been done on professional students of Engineering, Medical, Law and Teaching. In some studies the problems and personality characteristics of professional and non-professional students were compared.

(3) Non-professional students were found to have
more adjustment problems than professional students. Engineering and Medical students were found to have similar adjustment problems relating to Health, Home, Social and Educational areas. Student teachers were found to have more adjustment problems in Home, Health areas but less in Educational area than both Engineering and Medical students. Similarly, Law students had more adjustment problems in Home and less in Social and Educational areas than both Engineering and Medical students.

(4) On comparing the problems of male and female teacher-trainees, male trainees were found to have more problems in the areas of Family, Sex and Marriage, Economic, concern for social ills and Vocational but female trainees were found to have problems in the areas of Emotional personality, Academic dissatisfaction with training courses, Health and Social.

(5) The students of Law, Medical and Teacher-Training showed frustrations and conflicts to some extent. Medical students were found to suffer from moderate degree of anxiety and Law the highest.

(6) Most of the Medical students were found to have been drawn from urban areas. Approximately two thirds of the students came from the families of Low income group.

(7) Socio-economic background of Law students was found similar to that of Medical and Engineering students but in another study Law students were found to be higher in Social status than others.

(8) Failing students in Medical group were found to be maladjusted, immature, suffering from severe tension but some of them were not even intellectually inferior.
(9) Significant correlation was found between teaching efficiency; intelligence; social adjustment; Personality; economic status and academic record.

(10) The qualities of primary importance for Medical students were found to be creativity, adequacy and adjustment.

(11) Significant differences were found in the intelligence and personality characteristics of the students of Engineering, Medical, Law and Teaching which are as under:

   (a) Engineering students were found to be highly intellectually superior and Law the least. Medical students occupied second and Teaching third position respectively on intellectual ability. It was also found that even students of low intellectual ability secured admission in professions like Medical and Engineering.

   (b) Engineering and Medical students were found to have definite different personality patterns and more similarities than differences were found between Law and Teacher-Training students.

   (c) In some studies Medical group was found to be best adjusted with greater sense of security but in others Engg. was found to be best adjusted but other professional groups were found within the normal range of adjustment.

   (d) Female student teachers were found to be less self accepting than male students. Low accepting showed tendencies towards ego-weakness, shyness, less creativity and more ergic tension.

   (e) High creative Medical students were found to be more independent, original and sought challenge and low creatives
headed for general practice.

(g) High creatives in Teacher-Training were found to be urban living, with better family background, higher in economic values and better personality adjustment, tended to be socially bold with no social inhibitions but were victims of self conflict.

(h) Creative Engineering students were found to be more reserved, emotionally stable, assertive, venturesome, imaginative, experimenting and self sufficient.

(12) Predictive validity of psychological tests was found significantly high in forecasting academic success and training wastage in professional education of Medicine. A significant correlation of .6327 was found between the scores derived on psychological tests and the final grading arrived on the basis of conventional selection procedures. Hence the use of psychological tests was preferred and recommended over the time consuming usual selection procedure to get a fairly good picture of intellectual capacity and personality factors of the testees.

Similarly, in another study it was found that intelligence test scores did not discriminate the high and low achievers in Engineering whereas scores on neurosis, emotional balance and anxiety could discriminate them. Hence segregation of students on the basis of personality factors and the steps to be taken for personality development were recommended.

Therefore, it appears that some significant work has been done on the professional students of Engineering, Medical,
Law and Teaching covering wide range of problems but none of
the studies mentioned above can be considered as comprehensive
and broad based as the present study is so as to give a complete
picture of life problems of students and relating them to their
personality factors. A few studies were reported to have been
done to investigate into the problems of students but they
covered only four or five areas of problems whereas in the
present study almost all aspects of major life problems have
been covered under the ten areas of the Problem Checklist used
in the study. Moreover, it does not stop at investigating the
problems only but it attempts to probe further and tries to
determine the sources of problems whether internal or external
and thus proposes to relate the problems with other personality
as well as environmental factors. The personality factors
included in the study are significant factors of personality
and which appear to have quite high predictive value in predic­
ting academic and training success.

II STUDIES ON DIFFERENT VARIABLES

Some of the significant studies done on different
variables of students' Problems, Personality Adjustment, Self
Concept (self acceptance), Level of Aspiration and Creative
Potential included in the present study are given below:

(a) STUDIES ABROAD

Sears (1941) made an important study in determining
relationship between personality variables and goal discrepancy.
Sears divided her subjects into four groups according to goal
discrepancy scores and determined the personality characteristics of each group. The low positive discrepancy showed such personality characteristics as confidence, good manners and adaptability. The subjects in this group were practical and realistic in goal setting. The high positive discrepancy group exhibited strong ego involvement. They echoed self-confidence although showed strong drive for success. They were also odd in speech and manner and not very well adjusted socially. Mostly they were apprehensive, sensitive, insecure and worried. They lacked in adaptability. The negative discrepancy group, on the other hand, was strongly self-conscious. Generally these subjects showed a sense of insecurity and self protection and were too much anxious and afraid of failure. The mixed group was too heterogeneous to allow any generalisations.

A survey of the problems of high school youth by Elias (1949) deals with a variety of personal, social, vocational and other problems mentioned by over five thousand high school students. Twenty percent or more of the young people indicated that they had problems in each of the following categories: (1) Being able to talk to people, (2) How to develop self confidence, (3) Having a desirable personality, (4) Losing my temper, (5) Making some thing of myself, (6) Concerned about the future, (7) Don't know what I really want etc. Many of the students of this study named problems pertaining to School, such as 'being unable to concentrate', 'nor studying enough', 'being unable to express themselves'.

Heath and Gregory (1949) working with two hundred
and fifty nine healthy normal students at the college level found that about 90 percent of these either raised problems they wished to discuss, presented problems which the members of the college staff, recognised as difficulties that through discussions, might help to solve. These investigators state that, while college counselling services, as a rule, are designed to provide help to students who obviously are in trouble or who voluntarily come for it, most students actually have 'Problems' and would benefit greatly by a counselling or consultative programme in which all could take part.

Cohen (1954) has established relationship between variables of self acceptance and level of aspiration and maladjustment and particular patterns of goal setting. He found a significant curvilinear relationship between self acceptance and goal setting and maladjustment and goal setting. The results indicated that both very high or very low goal setting behaviour is significantly related to a high degree of self rejection and maladjustment and that only those who could accept themselves were able to use low positive or low negative goal setting.

Chodorkoff (1954) correlated ratings of the self, as made from a biographical inventory with results of the projective techniques, of 30 male undergraduates who were taking introductory psychology at University of Wisconsin. He found that the maladjusted live in the middle of range of self satisfaction as the results showed a significant curvilinear relationship between adjustment and degree of correspondence
between individual's perceived and ideal self.

Monk and Heath (1954) and Blaine and McArthur (1961) studied the problems of Harvard University students that interfered with their academic performance. Blaine and McArthur reported that over 50 percent of the Harvard students whom they studied complained of difficulty with studying. Whereas Monk and Heath reported that 20.3 percent of the students had problems that interfered with their academic performance. The authors observed that this difficulty was related to students' anxiety, depression, fear of failure, opposition to parental pressure, lack of motivation and/or feeling of inferiority, character traits or emotional sensitivity and had hampered with students' adjustment. It was found that significantly more of the students in this inadequate academic performance group saw psychiatrists at some time during college and were given higher ratings of disorganised work habits and living programme.

Hanlon, Hofstaetter and O'Connor (1954) compared the results of high school juniors on the California Personality Scale with the degree of congruence between ratings of the real and ideal self and found that the more the congruence better the adjustment. While Chase (1957) found greater discrepancy between Q-Sorts for self as compared with Q-Sorts for the ideal self among maladjusted patients than the average other persons. Similarly, Smith (1958) found that positive self concept was related to adjustment when he compared congruence between Q-Sorts for self and ideal self with scores on Edwards PPs
the Cattell factors, and measures of average mood. Welcox and Bruce (1971) again investigated into relationship between self-ideal-self discrepancies and adjustment. He worked on 43 male college students and found significant relationship. 'Smaller the discrepancy, better the adjustment.' Thus, the results consistently indicate, 'The greater the actual-ideal-self discrepancy, the poorer the adjustment.'

Joseph (1957) hypothesised in a study on the basis of Self theory and Adlerion theory that maladjusted subjects characterised by anxiety would present a depreciated self picture, report high ideals, and show a high discrepancy between self and ideal self concepts but maladjusted subjects with defensive patterns would show little discrepancy between self and ideal self and would present a picture of the self similar to that of normals.

Reidking and Wickwire (1959) studied the personality qualities of creative children. It was found that creative children as compared to non-creative children tended to be more social, more warm hearted and less anxious.

Attroesch et al. (1960), Byrne (1961) and Feeder (1968) related self acceptance to the repression-sensitisation dimension. They found that repressors had much smaller self-ideal discrepancies than sensitisers. In the first two investigations repression-sensitisation correlated .62 and .55 with self-ideal discrepancy scores.

In view of the relationship obtained in this study
between self-acceptance and the defensive style continuum of repression-sensitisation, it is possible that some of the positive relationship previously obtained between self acceptance and adjustment were really reflective of a defensive dimension. This hypothesis is supported by Block and Thomas (1955) and Zuckerman and Monashkin (1957) who found that Ss who scored high on measures of self acceptance also obtained high scores on the K Scale of MMPI often considered a measure of defensiveness.

Crutchfield (1961) attempted to describe personality attributes which tend to characterise creative individuals in general. He reported that in cognitive spheres they were more flexible and fluent; their perception and cognitions were unique. In approach to problems, they were intuitive, empathic, perceptually open, preferred complexity and were able to function effectively under stress, relatively unsusceptible to generalised anxiety, relatively free of feelings of inferiority and inadequacy. In emotion-motivational spheres they demonstrated freedom from excessive impulsive control, achieved via independence rather than conformity, were individualistic and had strong, sustained, intrinsic motivation in their field of work.

Kleinmutz (1961) made a study on freshmen and administered maladjustment scale, the M Scale. He reported that students who later sought counselling for emotional difficulties obtained significantly higher on the college maladjustment scale. Similarly, in a later study by Roth (1963), freshmen who sought counselling over the next year and a half were significantly differentiated from the entire freshman class in
obtaining poorer adjustment scores on California Test of Personality and higher scores on the Manifest Anxiety Scale.

Mackinnon (1961) reported in his study that the highly creative stress their inventiveness, independence, individuality, enthusiasm, determination, industry and have strong self-image or self-concept while the less creative stress virtue, good character, rationality and concern for others. The highly creative were able to speak frankly, in a more unusual way about themselves because they were self-accepting than the less creative ones.

He, in another study (1961) of the personality correlates of creativity of American architects, found high level of effective intelligence, openness to experience, freedom from petty restraints and inhibitions, aesthetic sensitivity, cognitive flexibility, independence in thought and action, high level of energy, increasing striving for creative solutions, high sense of responsibility, enterprising ambition, introvert designing, aloofness and self-accepting.

Baker (1963) found that academic stress adversely affects psychological adjustment. Across six academic years, the frequency of appeals for services at a university Psychological clinic increased significantly immediately following mid-term examination for both fall and spring semesters.

Pilisuk (1963) tested the relationship between characterological anxiety and S.A. and determined whether the two traits related inversely to several measures of openmindedness.
S.A. and anxiety by the Taylor Test of Anxiety Scale showed -.629 correlation. Both measures showed a strong relationship with a measure of denial. Manifest anxiety held small but significant positive correlation with tendency to Reject Threat and with Authoritarian Defence, while S.A. was negatively related to these variables. S.A. held small but significant positive correlation with tolerance for ambiguity and tendency to accept threat while manifest anxiety related negatively to these variables. The measures of non-conformity showed no relationship with Anxiety or S.A. However, all measures of openmindedness used were found to be related to one another. The study leaves tenable the hypothesis that anxiety, even when conceived as a trait, may be defined as a threat to self.

Feldhusen and Thurston (1964) compared high anxious children with low anxious children on personality and adjustment. Low anxious children were perceived by themselves and their teachers as possessing the most creative characteristics of the four sex anxiety groups. They were reported to have higher mean score on emotional adjustment, achievement in relation to capacity, and integration of self concept than the high anxious children.

Wallach and Kogan (1965) reported that level of anxiety was found to be lowest for the group that is high in intelligence but low in creativity. Anxiety level is middling for the two groups that are high in creativity regardless of intelligence level. Finally, anxiety level is highest for group that is low in intelligence and low in creativity. Hence
creativity is found to be maximal in the presence of an intermediate level of anxiety.

Zahran (1967) compared three groups viz. a positive self concept, a negative self concept and a middle group labelled as normal control. On the basis of self concept Index, the two extreme groups (PSC and NSC) proved to be significantly different from each other on a number of variables concerned with mental health and adjustment vs anxiety. Taking the total sample into account, the self concept index was positively and significantly related with the following variables:

George Windholz (1967) designed the present study to determine relationship between some personality traits obtained with self description and objectively scored inventories, and the constellations of divergent and convergent abilities, Semantic in content, as defined with Guilford's model of the structure of intellect.

The present study was done on 222 male and female college undergraduates of the University of North Caroline at Charlotten. It was found that subjects who were higher in divergent than convergent ability, semantic in content, tended to describe themselves as showing frequent moods, interests and energy fluctuations, and a tendency to be more worried, to have more frequent dreams, to be more hypersensitive, suspicious
and self-centred than subjects who were of higher convergent than divergent ability.

Demos, George (1968) studied all the two hundred and fifty dropouts at California State College at Long Beach to find out the specific reason as to why such a large percentage of students withdraw before completing their college education. The major reasons for withdrawing were most likely to fall within the areas of financial problems, lack of motivation, college work being too difficult and personal emotional problems, relatively less important were poor grades. Lack of motivation and the work being difficult probably had led to poor grades.

Schaefar (1969) investigated the self-concept of creative adolescents, significantly more often than the controls, viewed themselves as creative (imaginative), artistic, ingenious, original, independent, individualistic, uninhibited (spontaneous, impulsive), iconoclastic (assertive, outspoken, rebellious), complicated (complex, reflective, cynical, idealistic) and asocial (aloof). The creatives were found to be more open and honest in their responses as they checked more number of unfavourable adjectives while they scored low on Defensiveness and Personal Adjustment. The creatives scored high on Autonomy, Aggression, Dominance, Self Confidence, but low on Abasement, Affiliation, Deference and Nurturance.

Ashton (1974) used a questionnaire and Torrance Test of Thinking Creativity with pictures and 'what kind of a person are you?'. The study was done on a sample of 196 U.S. College
undergraduates. The results indicate that the higher original thinker characterised himself/herself as curious, versatile, a self starter who likes to be alone. In comparison a high elaborator describes himself/herself as industrious, courageous in conviction, non-conforming, quiet, critical of others, haughty, affectionate, energetic, possessing a sense of beauty, intuitive and curious. The overall profile of some one high on both originality and elaboration is that of one who disturbs existing organisation and procedures, feels strong emotions, is emotionally sensitive, always questions, eccentric, spirited in discussion and prefers complex tasks.

Horenstein (1976) made a study on 132 university students consisting of 55 females and 77 males who sought counselling services at the psychological clinic. The present investigation describes the psychological problems of students who seek counselling services and attempts to determine whether the problems described by these students differ in any way from the types of emotional problems reported by the general college population studied by previous investigators.

Contrary to the general consensus that the academic areas of students' lives create the greatest number of emotional problems, the present study indicated that concern over self i.e., self satisfaction, self image etc. is the greatest source of problems for students who seek psychological services. 'School' as a problem area ranked III as a source of problem. The students who are quite concerned with the area of self and self satisfaction can be considered to have deficiencies in ego strength.
e.g. deficiencies in self confidence, self image etc. This has been supported by the study of Kleinmeltz (1961) who has found that students who received psychiatric treatment scored significantly lower on 'Barron Ego Strength Scale' than students who did not receive psychiatric treatment.

Shand and Gran (1977) proposed to determine whether college women who were known to have high levels of anxiety differed from college women who had low levels of anxiety. The Cattell and Scheier IPA1 Anxiety Questionnaire and Gorsin S.A. Qs Chicago Q-Sort were administered to 146 college women divided into 'high' and 'low anxiety' groups. Those women with a high degree of anxiety were found to have significantly greater discrepancy between the Perceived self and Ideal-self concepts than did those who had low levels of anxiety.

(b) STUDIES IN INDIA

World Brotherhood (1960) made a comprehensive survey of the attitudes, opinions and personality traits of a sample of 1706 students of the University of Bombay including students of professional courses. The data was collected through the use of a questionnaire. 33 percent experienced dissatisfaction with available facilities. 57 percent of the students felt that the authorities were just not bothered about them. A substantial majority of them, 64 percent expressed strong disapproval of being treated as mere children by the college authorities, but 44.6 percent felt that the authorities at times are justified in chasing them. About teachers and their teaching methods 70 percent had no disparaging remarks about them whereas
about 30 percent considered their teachers' behaviour as not 'proper', 'insulting students in front of the whole class', 'calling students scoundrels', 'treating students like servants', 'threatening to fail them in examinations'. 25 percent stated that majority of teachers 'lacked understanding of problems and needs of students', while 33 percent considered the statement applied to a minority of teachers. 56 percent of the students felt that they had sufficient social contacts with the teachers but 40 percent denied having contacts with their teachers, nor did they enjoy the benefit of individual attention, 'they wanted their teachers to know each student personally'. 62 percent endorsed opinion 'teachers generally fail to create interest in the subject matter'. 80 percent of the students from professional colleges have found only a few of teachers successful in creating interest in the subject.

As many as 54 percent did not think that the academic standard in university was satisfactory and of those 20 percent were from professional colleges. As regards relationship with fellow students, 53 percent, especially from professional colleges did not approve of the behaviour of their fellow students. 65 percent were found to be worried or particularly anxious about future prospects and career jobs. Financial difficulties were experienced by 37 percent. Another 37 percent were disturbed by family quarrels and lack of harmony at home.

In 1961-62 an investigation of the needs of college students and similarly in 1963-64 a survey of the problems of secondary school boys and girls in eleven areas of the country,
was carried out by All India Educational and Vocational Guidance Association and by National Institute of Education, N.C.E.R.T. respectively. The samples for both the studies were drawn from urban area. The AIEVGA study covered 3096 students in undergraduate and psychological courses in 17 universities and their affiliated colleges. The NIE study covered 5001 boys and 4058 girls of grades 9 and 11. The purpose of the investigations was simply to make a survey of the problems of college as well as higher secondary students. The felt needs of the students and their problems were collected through group administration of Problem Checklist specially developed for this purpose.

The largest number of problems checked were adjustment to school, the second largest in the area of social and recreational activities, and the third largest in the area of personal-psychological relations. The other areas with the lowest frequency of problems were curriculum and Teaching Procedures, Home and Family, Sex, and Social and Psychological relations. Findings for both the groups contrasted sharply with the view generally prevailing among educationists that reforms in the curriculum, text books and methods of teaching are of utmost importance, and that the problems of adjustment of the students can be left to them to be solved.

Badami (1967) studied the adjustment problems of the students in the Arts, Science and Commerce colleges in the city of Ahmedabad. He observed that the total number of problems marked by boys gradually increase up to the age of 19 years and
then decrease up to the age of 22 years but again increase. In the case of girls, these increase up to the age of 18 years and then decrease. He found that both boys and girls have a large amount of problem load in the area of Vocational, Economic and Material Faculties, and Educational, while in the areas of Family, the problems appeared to be the least. In the areas of Friendship, Sex and Marriage, Social and Educational, both the groups expressed equal amount of concern. He did not find significant difference between the total number of problems marked by boys and girls but there was a significant difference between the two groups regarding the nature and types of problems. He also observed that there was a significant difference between the total number of problems faced by the students under the faculties of Arts, Science and Commerce.

68 Kakkar (1967) investigated the relationship between adjustment and self acceptance. Two hundred high school students were classified into well adjusted and less adjusted groups through Bell Adjustment Inventory. They were asked to check a list of fifteen apparent disparaging statements those true of themselves. The more well adjusted checked significantly more statements than did the less adjusted students.

69 Nikore and Desh Pandey (1967) made a study to find out the relation between the anxiety levels and the various personality patterns. Individuals with low levels of anxiety manifested a tendency to score higher on the trait of self reliance and self-image revealing thereby sufficient capacity to do things independently and facing life situations with
confidence. High level of anxiety was found to be associated with low feeling of belongingness and loss of confidence in personal worth. Thus, showing a tendency to withdraw from various life situations. Thus, it shows that higher anxiety tends to shatter one's confidence in his personal worth and results in lowering of the individual's potential action level and developing poor self image.

Fuster (1968) investigated the relationship between self-ideal congruence and personal adjustment in Indian college students in the Deptt. of Psychology and Sociology of St. Xavier's College, Bombay, using Hilden's Q-Sorts, California Test of Personality and Masani Problem Checklist.

The findings pointed to a definite relationship between congruence of self-concept and ideal-self concept and personality adjustment. Those subjects who obtained a high degree of congruence between what they perceive they are and what would they most like to be, share in a considerable degree the components of personal adjustment, viz., self reliance, a sense of personal freedom, a feeling of belonging and possess neither withdrawing tendencies nor nervous symptoms.

Congruence of self-ideal concepts which proved to be an indicator of personal adjustment in a group of American subjects taken as a whole, holds good also as an index of personal adjustment in Indian subjects taken as a group. For it was found to correlate positively and significantly with the 'yes' scores on Masani's Test which measures neurotic tendencies in Indian subjects.
Agarwal (1970) investigated the adjustment problems of pupils of secondary schools as perceived and judged by parents, teachers and pupils themselves. He found that adjustment problems in home, school and social areas as perceived by pupils themselves decrease with age whereas in the case of emotional and health areas they increase. Another finding of the study was that most of the mean differences between different socio-economic strata groups in home and health areas increase. Another finding of the study was that most of the mean differences between different socio-economic strata groups in home and health areas and between upper and lower socio-economic groups in other areas were found to be significantly different. The number of pupils' overall adjustment problems in different areas except home is highest for upper socio-economic group and lowest for the lower. He also found on the basis of the parents' responses that the number of adjustment problems of pupils increases significantly with age in home and health areas, and same decreases in social area. Parents feel that the pupils have more adjustment problems in home area rather than emotional area. Teachers' perception of pupils' adjustment problems is, by and large, in agreement with that of parents.

Deo and Sharma (1971) established relationship between self concept and anxiety through conducting a study on large population of 362 males and 338 females from eleventh class of thirteen urban higher secondary schools of four different states in northern India. It was found that self concept and anxiety are negatively related, and their increase in self
concept is accompanied by decrease in anxiety.

Shahnaz Masood (1972) studied the adjustment problems confronted by men undergraduate students of faculty of Science in A.M.U., Aligarh. The investigator reported that most of the students faced the largest number of problems in the academic field. Their greatest difficulty was found to be the lack of knowledge of proper method of study. Another academic problem closely related with the above is inadequacy of students in reading, writing and speaking English. A good number of students also feel that their home environment is not congenial for proper study.

Karandikar (1975) studied the problems and conditions of randomly selected 1,545 students of forty colleges in the Poona University area. The objective of the study was to find out the problems of the degree course students and indicate probable solutions to the problems in order to help the Govt., the University of Poona, and the colleges in the university area to consider specific measures for improving the conditions of their living and working. The data was collected through questionnaires and inter-schedules. The major findings of the study were:

1. The rural students constituted an economically weaker group.

2. Collegiate students constituted a heterogeneous group as regards social and economic background.

3. Students did not know how to plan their studies and time schedules.
(4) Students lacked proper facilities for studies.
(5) A substantial percentage of students did not participate in co-curricular activities.
(6) The relationship of students with parents seemed formal.
(7) Students showed respect for teachers but there was general complaint that they did not receive much help from teachers in solving their Problems.
(8) Misbehaviour and pranks were caused by boredom with lectures.
(9) Women students shared the general problem of the collegiate students.

Patel (1976) studied the personality syndromes associated with different dimensions and profiles of creativity. The objective of the study was to describe the outstanding personality traits of people who had high scores on each of the creative dimensions considered individually and of those displaying different creative patterns.

The high fluent males were found to be more significantly outgoing, trusting, forthright, placid and self assured than those low on fluency. Those high on flexibility were significantly more venturesome, trusting, placid and self assured than those low on flexibility. Those high on originality were more self-assured and self-sufficient than those with low originality scores. The high elaborators had significantly higher scholastic mental capacity, emotional stability, dominance, conscientiousness, tendermindedness, suspiciousness and self-sufficiency than low elaborators.
Gupta (1977) tried to find out the relationship between creativity and self concept among 1,000 school going children both boys and girls of the age group of twelve plus in Jammu city. To measure creativity, a verbal and non-verbal test battery of creativity/constructed by the investigator was used. For estimating real self concept and ideal self concept, the Deo's Personality Word List in Hindi was used.

The results highlighted the importance of having higher and healthier self concept and higher self acceptance as important personality characteristics conducive to higher creativity both verbal and non-verbal. Highly creative individuals were found to possess higher self concept and high self acceptance both of which were conducive to better adjustment and positive mental health. But the intimate relationship between creativity and self-acceptance indicated by contrasted group analysis could not be substantiated by high correlation between the two variables, possibly because of scatter caused by the middle forty six percent group.

Rawat and Garg (1977) made an attempt to study the relationship between level of aspiration and creativity with respect to Sex, Age and School Subjects. The study was conducted on a sample of 200 (boys and girls) of Arts and Science. The age range of the subjects was 12 to 15 years studying in class IX. No significant differences were found in high and low creative groups between over and under aspirants. However, a significant difference was found between over and under aspirants in average creative group. This shows that there is a
room for improvement in the potentialities of average creative pupils if their aspiration can go up. No significant difference was found between over and under aspirants (as a whole) and creativity.

Sudha and Lalitha (1979) studied the effect of Personality trait variation on the Intensity of Problems of adolescent girls. The sample was comprised of 700 girls of the age group between 10 to 16 years. The criterion group of adolescent girls for high and low traits of Ascendancy, Responsibility, Emotional Stability, Sociability, Vigour, Original Thinking, Cautiousness and Personal Relations were obtained by taking the upper 25 percent and lower 25 percent of the total sample on scores obtained by them on a Personality Scale developed for this purpose. An Adolescent Girls' Problem Inventory was used to obtain the indices of intensity of Problems.

Among the eight personality traits studied, it was found that the effect of six traits as such was significant in differentiating the intensity of problems of adolescent girls. The girls with high traits faced less intensity of problems than the girls with low traits. Thus, the personality traits, it appears, are related with the intensity of problems negatively and the development of trait would decrease the intensity of problems faced by them. The traits that did not differentiate were responsibility and original thinking.

On an examination of the studies as quoted above which were carried out on different variables of Problems, personality adjustment, self acceptance, level of aspiration,
creative potential etc. the following conclusions may be drawn:

(1) Most of the work was done on the college students, some on the high school students and a few on the children.

(2) The work ranged from problem surveys to group comparison and correlational studies pertaining to different personality factors.

(3) The studies related to investigate into the problems of the students were mostly of survey type but some of the surveys conducted by A.I.E.G.A., N.C.E.R.T. and World Brotherhood in India were extensive surveys carried on All India basis. A few studies have also been done to determine the relationship of problems with age, sex, socio-economic status and with some personality traits. The problems were mostly located through administering Problem Checklist and adjustment problems through adjustment inventories. The major findings regarding the problems of the students are under:

(a) It was found that majority of the students encountered different types of problems and the percentages of students reporting to suffer from them which interfered in their academic pursuits and in developing healthy and smooth interpersonal and intra-personal relations among them vary from group to group. Most of the surveys were done on normal students. The problems ranged from Financial, Health, Social (interpersonal), Personal (intra-personal), Home, Sex and Marriage, Concern about future, Academic pursuits (related to teachers, methods, curriculum, lack of proper knowledge of methods of study, inadequacy in reading, writing and speaking English) etc.
(b) Contrary to the general consensus that greatest number of emotional problems arises from academic area, it was found that concern over self was the greatest source of problems.

(c) Intensity of problems was found to be related negatively to personality traits. It was found that persons with high personality traits of Ascendancy, Emotional Stability, Sociability, Vigour, Cautiousness and Personal relations etc. faced less intensity of problems than persons with low personality traits.

(d) The total number of problems, and the types of problems, was found to be related to age, sex, socio-economic status etc. The total number of problems increased gradually up to 19 years of age and then decreased up to 22 years and again increased. The problems in Home, School and Social areas tended to decrease with age but problems in Health area increased. Significant differences in the nature and types of problems were found in the case of boys and girls. In one of the studies it was found that overall adjustment problems in almost all the areas of problems except Home were found to be highest for the upper socio-economic group and lowest for the lower group.

(e) The major reason for large percentage of withdrawal at college level was found to be financial problems, lack of motivation, college work being too difficult, personal and emotional problems and less important reason given was poor grades.

(4) Higher anxiety group tends to shatter confidence in one's worth, results in lowering individual potential action and develop poor self-image. Anxiety was found to have negative
correlation with self acceptance (self concept). Thus increase in self concept was accompanied by decrease in anxiety but it showed positive correlation with tendency to threat and thus it is considered to be a threat to self.

In some of the studies creativity was found to be maximum in the presence of intermediate level of anxiety while in others low anxious subjects were found to possess more creativity. It appears that creative persons react differently under different situations. For some anxiety is an hinderance in the performance of their creative task but for others it acts as an stimulation for creative impulse.

(5) With regard to relationship between adjustment and self acceptance it has been found that adjustment is significantly related to self acceptance. The results indicate that smaller the discrepancy between real self and ideal-self better the adjustment. In one of the studies a curvilinear relationship was found between adjustment and degree of correspondence between individual's perceived self and ideal self and maladjusted were found to lie in the middle range of self satisfaction. But some investigators contradicted the previously found positive relationship between self acceptance and adjustment. According to them the positive relationship found between the two may be reflective of defensive dimension. It was found that those who scored high on self acceptance also scored high on defensiveness. But in another the more well adjusted were found to check significantly more disparaging statements about themselves than did the less well adjusted group. Thus contradictions with regard to relationship between self acceptance
and adjustment were found in some studies. The probable reason may be as so much subjectivity is involved in assessing self concept, that it is considered to be a very confusing subject. Moreover, it is very difficult to control other factors influencing self and then study it.

(6) Self concept was found to be positively correlated with defensiveness, emotional stability, social maturity, personal social, health and emotional adjustment, ego strength, mental health and low ergic tension.

(7) A significant relationship was found between self acceptance and level of aspiration, maladjustment and goal setting. Both very high and very low goal setting go with self-rejection and maladjustment. The subjects with different levels of aspiration patterns exhibited different personality traits. The subjects who scored low positive discrepancy scores were found to possess confidence, good manners, adaptability, practical and realistic in goal setting. The high positive discrepancy group exhibited strong ego involvement, very well adjusted socially, most sensitive, insecure and worried. The negative discrepancy group was found to be strongly self-conscious, having high sense of insecurity and self protection, and too much anxious of failure.

(8) With regard to creativity and level of aspiration no significant difference was found between high and low creativit between over and under aspirants but significant difference was found between over and under aspirants in average creative group. It shows that if aspiration goes up there is a room for improvement in the potentiality of average creative pupils only.
(9) With regard to relationship between creativity and self concept (self acceptance) highly creative children were found to possess strong self image or higher self concept and high self acceptance but no significant correlation was found between the two variables. In another study creative adolescents were found to have checked more number of unfavourable adjectives describing themselves, while they scored low on defensiveness and personality adjustment. Thus, creative persons were found to be more open and honest in their response to themselves.

(10) Quite a large number of studies have been done on sketching the personality profile of creative college students. The high creatives stressed inventiveness, determination, industry, independence in thought and action, high level of effective intelligence, openness to experience, freedom from petty restraints, increasing striving for creative solutions, showed flexibility and fluency in approach to problems, high sense of responsibility and had strong sustained motivation in their field of work. Thus, looking to the personal qualities which creatives seemed to possess it appears that to be successful in any of the professions of national importance, creative approach to personal and professional life situations is very essential. Therefore, in the selection procedure sufficient stress should be given to general creative ability of the students and hence creativity tests should be incorporated in the selection programmes of the professional students.
GENERAL CONCLUSIONS

The major conclusions, drawn from the different studies undertaken on the students of the four professions and on the different variables included in the present study so far, can broadly be presented as under:

1. A small number of comparative studies have been undertaken on students preparing for different professions of Engineering, Medicine, Teaching and Law.

2. Quite a large number of researches have been reported on the personality characteristics of students, selection criteria, intellectual abilities, creativity, socio-economic status, problems, anxiety and frustration, problems of attrition and achievement etc. in four professions, independently or between any of the two professions.

3. A limited area of personality has been measured.

4. Main dimensions of personality measured in these studies include intelligence, creativity, attitudes, motives, values, needs, adjustment, self acceptance (self image or concept), level of aspiration, emotional stability, sociability etc.

5. A wide variety of tools and techniques have been used in these studies such as the questionnaires, ratings, interviews, psychological tests, personality inventories and projective techniques.

6. Personality characteristics of each group of professional students as drawn out in these studies are:

(a) ENGINEERING STUDENTS.

They are characterised as intelligent, imaginative,
creative, emotionally stable, above average in achievement, extroverted, sociable, self sufficient, self confident and best adjusted. They prefer freedom of expression, and also things and ideas rather than association with people. High achievers are found to be low in anxiety, tension, frustration, more emotionally balanced, likewise high in abilities and motivation and freedom of expression.

(b) **MEDICAL STUDENTS**

They are found to be emotionally stable, creative; having moderate anxiety and cynicism, increased value of independence, support, recognition, good adjustment and great sense of security. Majority of them are introversive. They are high on theoretical value and need to achieve and change. Only a small proportion of them face financial difficulties. Being benevolent, in the sense of wanting to help others, becomes increasingly important to them.

(c) **STUDENT-TEACHERS**

They have higher motive for acquiring more knowledge, take interest in intellectual activities, love for work and children, public service, aptitude for teaching, extroverted, high in language ability, self-accepting but not well adjusted with their profession and less creative. Highly creative persons are not attracted towards this profession. Training reduces their interest in business and financial matters but increases their interest in children, social and intellectual activities.
(d) **LAW STUDENTS**

They are found to be high on general anxiety and cynicism, have higher need of dominance, tendency to persuade and influence others and self blaming and have high political value.

7. Many surveys on the problems and needs of college students were conducted to determine percentage of problems in different areas.

8. These surveys reveal that problems arise from different sources i.e., from Educational institutions, Home, Sex and Marriage, Personal and emotional interpersonal relations, Financial difficulties etc. These problems are even faced by the normal population of the students.

9. Constant facing of problems generally brings frustration and tension which adversely affects adjustment. Moreover the effect of personality traits was found to be on differentiating the intensity of problems.

10. The main causes of 'dropping out' given were financial difficulties, lack of motivation, college work being difficult and personal emotional problems.

11. Relationship studies have been undertaken between two or more variables and their major findings are given as under:

(a) Curvilinear relationship between adjustment and degree of correspondence between individual's perceived and ideal self was found.

(b) Self-rejecting and maladjusted set either very high or very low goal while self-accepting and well adjusted
set goals closer to their achievement.

(c) Self esteem was found to be negatively related to anxiety. High level of anxiety lowers self image.

(d) Self concept was found to be positively related to adjustment. Well adjusted were found to be more congruent in their real and ideal self than less adjusted.

(e) Low anxious were found to be more creative, emotionally adjusted, good in achievement, having integrated self concept, realistic in goal setting and more self-accepting than high anxious.

(f) No significant difference was found in high and low creative groups, between over and under aspirants. However, a significant difference was found in the case of average creative group.

The review of the research literature related to the problem undertaken indicates that very few comparative studies were conducted on personality characteristics of students preparing for different professions. Whatever little work was done it was either limited in number of professions compared or data was based on a very limited dimensions of personality and only with the exception of studies by Blum, Pal and Sharma which are personality studies of Engineering, Medical, Law and Teacher-Training students. Pal measured some aspects of personality of the students through projective technique while Blum used MMPI Scale and Strong Vocational Interest Blank. Sharma compared the Problems of professional and non-professional students and studied the factors underlying adjustment Problems through adjustment inventory and other personality inventories.
The present study resembles these studies to the extent of studying personality characteristics of the students of Engineering, Law, Medicine and Education (teaching) groups. But it differs with respect to some of personality characteristics studied and, moreover, life problems of students in these professional groups were studied in relation to their personality factors. Sharma compared adjustment problems of professional and non-professional students. Thus, the present investigation departs from previous investigations inasmuch as it studies problems of the students in the four professional courses in relation to different personality factors. Most of the studies done on the problems of students were mostly surveys. The investigator came across only two studies which were conducted by Sharma (1978) and Sudha and Lalitha (1979). Sharma compared the adjustment problems of professional and non-professional students and then made a case study of some extreme cases by measuring and comparing some of their personality variables. Sudha and Lalitha studied the effect of some personality traits in differentiating the intensity of problems of adolescent girls. The present study covers a wider field and attempts to measure different dimensions of personality, considered important for the success of the students studying professional courses, through different personality tests and inventories. The students' problems were located through Problem Checklist and the relationship of students' problems with some of their personality factors was determined.
REFERENCES


33. ICMR, Follow-UP of Students admitted to St. John's Medical College, Bangalore, New Delhi, 1974. Ibid.


63a. Kleinmutz. op. cit. (S.No.52).


66. An All India Survey on Guidance Needs of College Students, All India Educational and Vocational Guidance Association, Delhi, 1961-62.


