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A STUDY OF RELATED LITERATURE

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2.1 INTRODUCTION
Researches done in any field—may be in social sciences or natural sciences or languages—are not conducted in a vacuum. Research is a vast ocean and there is a continuous flow of researches like rivers meeting the ocean. One who sits on a shoulder of somebody can look far ahead. In the same fashion, the future researchers can investigate more effectively and on a wide and deep spectrum than the present and the past ones. They can replicate the studies if there is any confusion in the conclusions drawn by different researchers. Again, they can study in detail the objectives, tools of research, research methodology, methods of analysis, et cetera, followed by various researchers. The succeeding researches can thus take full advantage of the previous researchers and can amend, modify or use altogether a different strategy which may be worthwhile. Review of literature is, thus, an important aspect that must be undertaken by the investigator before he or she commences his or her work.

Gareetson and Dunlap at the Junior High-school level and Cloetone at the adolescent and adult level made vast studies about interest. But they did not test their tools for validity. Lee and Thorpe also worked in this field.

There were some psychologists who laid milestone in the field of measurement of interest and provided with few extremely reliable as well as useful instruments for measuring interests of pupils at school and college levels and of adults working in various walks of life.
Two interest inventories have been studied in a great detail since decades and have provided useful and vast results. They are the Strong Vocational Interest Blanks (SVIB) and the Kuder Preference Record (KPR) - Vocational, Occupational and Personal. Gradually more and more work on interest have been carried out in other countries as well as in India. Here is the narration.

2.2 STUDIES CARRIED OUT IN OTHER COUNTRIES
2.2.1 The Strong Vocational Interest Blank (SVIB) and Strong-Campbell Interest Inventory from the SVIB (SVIB - SCII)

E.K.Strong was working in the Stanford University and he was doing his studies in the field of interest after the first world-war. Even after publishing his first interest inventory in the year 1927, he kept on working on it until his death. As a result, his inventories have been proved as some of the most thoroughly studied and understood psychological instrument of interest in existence.

Strong developed two separate inventories to measure the vocational interest of men and women. They are known as Strong Vocational Interest Blank for Men and Strong Vocational Interest Blank for Women.

In the SVIB, the items dealt with the respondent's liking or disliking for a wide range of specific activities, objects, types of persons that he or she
commonly encountered in daily living. The responses were empirically keyed for different occupations.

It was found that persons working in different occupations were characterized by common interest which differentiated from persons in other occupations.

Later on, the SVIB Inventory forms for men and women were merged into one single test booklet. It was then called Strong Campbell Interest Inventory form of the Strong Vocational Interest Blank. ¹

The 1985 SVIB - SCII consists of 325 items grouped into seven parts. In the first five parts, the respondent records her or his preferences by marking L, I or D to indicate 'Like' 'Indifferent' or 'dislike'. Items fall into the following categories: occupations, school subjects, leisure activities and day to day contact with various types of people, as for example, very old people, military officers, people who live in a dangerous situation. The remaining two parts require the respondent to express a preference between paired items and marking a set of self-descriptive statement either 'Yes' or 'No'. The SVIB-SCII can be scored only by the computer at scoring centres designated by the publisher. There are three levels of scores, differing in breadth. The broadest and most comprehensive are the 'Six General Occupational Theme Scores', the next
subdivision includes 23 'Basic Interest Scales' and at the most specific level are the 207 available 'Occupational Scales'. The classification of occupational interests derived from the theoretical model developed by Holland were as below: Realistic, Investigative, Artistic, Social, Enterprising and Conventional. In Holland's model, persons are not classified rigidly into one of the major six types rather they are characterised by degree of resemblance to one or more types, such combinations of types, ordered by degree of resemblance, thus provided a multiplicity of patterns or 'Codes' for describing the wide diversity of individual differences. The profile of 23 basic interest scales consists of clusters of substantially intercorrelated items. The 1985 SVIB-SCII inventory includes 207 Occupational Scales, all normed on current samples, varying from 60 to 420. For all but 5 of these scales, it proved feasible to locate enough respondents to develop both female normed and male normed scales. Thus far, four scales are normed only on women; one only on men. In this revision, the occupational criterion groups consisted of slightly under 50,000 (out of 1,40,000 persons) who met the required specifications for use in scale development. These groups consisted of persons between the ages of 25 and 60, employed in the given occupation for at least three years, who reported satisfaction with their work and met certain minimum
standards of successful occupational achievement. There are also two general reference samples, including 300 men-in-general (MIG) and 300 women-in-general (WIG). Both samples were chosen so as to be representative of the major types of occupational covered by the inventory.

As stated by Anastasi, all scores on the SVIB - SCII are reported as standard scores with a mean of 50 and SD of 10. For both General Occupational Themes, and Basic Interest Scales, the normative sample from which standard scores are computed, is the combined sex general reference sample (N=600).

In the occupational scales, each respondent receives two standard scores: one derived from the male occupational sample, other from the female occupational sample. The reporting procedures finally chosen for the 1985 SVIB - SCII, while directed primarily to same-sex comparisons, provide the necessary data for counsellors and respondents to make cross-sex comparisons for fuller and more effective interpretations of response patterns in individual cases. Anastasi observes, "The Strong interest inventory is not only a pioneer in the field of interest measurement: it is also the most widely used, nationally and internationally."
2.2.2 Jackson Vocational Interest Survey (JVIS)

The JVIS exemplifies sophisticated test construction procedures and in several respects, its approach is quite opposite from that of the SVIB - SClI. It is one of the newest inventories. Jackson utilised broad interest areas in both item development and scoring system. All items in JVIS are of the forced-choice type.

In its construction, the JVIS reflects the current, more strongly theory based approach to test construction, as well as methodological advances made possible by the advent of high speed computers.

The first step in the development of the JVIS was to define the constructs or dimensions to be measured. They were of two types. One defined in terms of work roles, the other in terms of work styles. Work roles pertain to what a person does on the job. Work styles refer, not to job related activities, but to a working environment in which a certain kind of work styles include planfulness, independence and dominant leadership.

Items were prepared to fit the detailed specifications for each of the work roles and work-styles.
The development of the final forms followed several steps, including successive try outs and statistical analyses of items. With an initial pool of over 3,000 items, the procedure included factor analyses of subsets of the items prepared for each scale.

The final form of the JVIS contains 34 basic interest scales, covering 26 work roles and 8 work styles. The inventory was designed to be equally applicable to both sexes. An equal number of men and women was employed in item selection and scale construction. Standard score norms on each scale were computed from combined and equally weighted male and female normative samples. Separate percentile norms in terms of male and female subgroups are also available of college and high-school students in the United States and Canada, chosen so as to encompass a wide range of geographic and community characteristics.

A high score of any of the 34 JVIS basic interest scales indicates an interest in the things people do in a particular field of work, as well as in the way people in that work content are expected to act. It can be hand-scored quickly and conveniently for the 34 scales, and the raw scores can be transferred directly to the profile chart, on which they are converted to standard scores with mean of 30 and SD of 10. Scores
have also been developed for General Occupational Themes, modelled after Holland's six themes, these scores were derived from a factor analysis of the 34 basic interest scales.

2.2.3 The Kuder Preference Record (KPR) 6

G.F. Kuder is another prominent name in the field of interest. He started working in this direction some years after Strong published his first interest inventory. The research initiated early in the 1930's and the Kuder Preference Record was published in 1939.

The Kuder interest inventories have been in use almost as long as the Strong series. The earliest was the Kuder Preference Record - Vocational, whose approach to the measurement of interest differed from Strong in two major ways: first, Kuder used forced-choice triad items, in which the respondents indicated which of the three activities they would like most and which least; second, scores were obtained not for specific occupations, but for 10 broad interest areas. Items for each scale were formulated and tentatively grouped on the basis of content validity; final item selection was based on internal consistency and low correlations with other scales. The Kuder General Interest Survey was developed later; as a revision and downward extension of the Kuder Preference Record - Vocational designed for grades 6 to 12. This form uses
simpler language and easier vocabulary, requiring only a six-grade reading level; still another version, the Kuder Occupational Interest Survey, has been developed through criterion keying procedure similar to those followed with the SVIB. Unlike the SVIB and an earlier Kuder Occupational Form, however, this form does not employ a general reference group. Interest, the individual's score on each occupational scale, is expressed as a correlation between his or her interest pattern and the interest pattern of the particular occupational group. This interest Survey can not be hand-scored; answer-sheets are returned to the publisher for computer scoring. Scores are currently available for 126 specific occupational groups and 48 college majors. Thus far, some scales have been developed only on men, some only on women. However, some scales are reported for both male and female respondents. The occupations covered by this inventory vary widely in level, ranging from beautician and truck driver to chemist and lawyer. The elimination of a reference group permits this broad coverage within a single instrument.

Kuder's some inventories are listed as below:

i  Kuder Vocational Preference Record
ii  Kuder Occupational Preference Record
iii Kuder Personal Preference Record
iv  Kuder General Interest Survey
v  Kuder Occupational Interest Survey
All these inventories are for men and women in general. They can be administered individually or in mass. It does not require any time-limit.

From pupil's choices among hundreds of Kuder's items, scores are obtained to indicate interest in the following ten sections of vocations.

1. Outdoor
2. Mechanical
3. Computational
4. Scientific
5. Persuasive
6. Artistic
7. Literary
8. Musical
9. Social Service
10. Clerical

A later version, the Kuder Occupational Interest Survey (KOIS) provides scores with reference to specific occupational groups, as does the Strong Inventory. Here, the respondent's score on each occupational scale is expressed as a correlation between his or her interest pattern and the interest pattern of the particular occupational group. This interest survey can be scored only by computer. Scores are currently available for 126 specific occupational groups and 48 college majors. The latest form of the KOIS (Zytowski, 1985) provides both Occupational Scores and 10 broad, homogeneous basic interest scores, labelled as Vocational Interest Estimates (VIE). The VIE are percentile scores derived from short scales equivalent to the 10 interest area scores of the early RPR.
2.2.4 Career Assessment Inventory (CAI)

First releases for operational use, the CAI is patterned closely on the SVIB-SCII. It was designed specifically for persons seeking a career that does not require a four-year college degree of advanced professional training. It concentrates on skilled trades, clerical and technical work and semiprofessional occupations. The 305 inventory items are grouped under three content categories: activities, school subjects and occupational titles. Each item provides, five response options from 'like very much' to 'dislike very much'. As it is written at a sixth grade reading level, the CAI can also be used with adults who have poor reading skills. Like the Strong's, CAI provides scores on three major types of scales, including the 6 Holland General Theme Scales and 91 Occupational Scales.

The CAI manual is exemplary in its fullness and clarity. The test construction procedures are of high quality and psychometric properties of the instrument are impressive, especially in view of its recency.

2.2.5 Self Directed Search (SDS):

SDS was developed by Holland whose hexagonal model of general Occupational themes has attracted wide attention and has been incorporated in several current inventories. As its title implies, the SDS was designed as a self administered, self scored and self
interpreted vocational counselling instrument. The individual fills out the self-Assessment Booklet, scores the responses, and calculates six summary scores corresponding to the themes of the Holland model—Realistic, Investigative, Artistic, Social, Enterprising and Conventional. The three highest summary scores are used to find a three letter code. An accompanying booklet, the Occupations Finder is employed to locate among 1156 occupations. Those whose codes resemble the respondent's summary code, additional instructions, procedures and sources of information are provided to facilitate the individual's career decisions. In the few years since its publication, it has undergone repeated revisions to simplify procedure and reduce sex-bias in career decisions. Its chief practical appeal stems from its brevity and simplicity, its do-it-yourself feature, and its role in expanding the individual's career operations. Indices of reliability are generally satisfactory for the summary scores. Construct validation of the basic six themes relies principally on the earlier research. Validity data reported for the SDS itself are meager; the occupational themes correspond to model environments in terms of which different occupational environments may be characterized.

According to Holland, individual seeks environments that are congruent with their personality...
types, and such congruence enhances work-satisfaction, job-stability and achievement.

2.2.6 Miscellaneous Foreign Interest Inventories:

From the year 1927, when the SVIB was first published to the year 1985 when Holland developed SDS, the most widely used inventories of interest, nationally as well as internationally have already been described in full detail. Apart from these five instruments to measure interest, there are some others that are in vogue and are used, when needed. These inventories are enlisted below:

1. The Cleeton Vocational Interest Inventory
2. The Lee-Thorpe Occupational Inventory
3. The Michigan Vocabulary Profile Test
4. Job Preference Survey
5. The Career Assessment Inventory
6. The Career Direction Inventory
7. Ohio Vocational Interest Inventory
8. USES-Interest Inventory
9. Vocational Interest Inventory

2.3 STUDIES UNDERTAKEN IN INDIA IN THE FIELD OF INTEREST

The common feature of all the above mentioned studies is that they were all taken up in the western countries. Vocational and academic interest have also been studied in various parts of India.
In the Fourth Survey of Research in Education by M.B.Buch, Kuldip Kumar, while writing a trend report on Research in 'Test and Measurement', took decadewise stock on different aspects of testing. In Table 10.1, he had shown that in the field of interest, the researches undertaken were 8 (1961-70), 4 (1971-80), and 1 (1981 onwards), thus the total number being thirteen.

Many of these researches as well as allied work pertaining to interest carried out in India have been described below:

Relatively little work is done on interest measurement. Kuder's model seems to be more popular with the Indian researchers. Four investigators have attempted to adapt the Kuder Preference Record (KPR) - Naik (1965) in Hindi, Parikh (1971) in Gujarati and Gopalan (1972) in Malayalam. Trivedi (1969) constructed an interest inventory for undergraduate students, and Kaur (1970) developed a battery of tests to assess students' abilities, aptitudes and interests.

Besides these, Chatterji (1961) has designed a non-verbal interest inventory based on adaptation of certain aspects of Kuder Preference Record.

Grewal (1971) studied educational choices and vocational Preference of Secondary School Students in relation to environmental process variables. Some of the major findings were: (1) rural and urban students studying humanities and science differed significantly;
(2) boys differed significantly from girls in their levels of vocational preferences (3) significant relationships were found to exist between vocational environment of home, community and level of vocational preferences; (4) home environment was more favourably perceived in comparison to that of the school and community and (5) no clear cut rural-urban pattern of occupational choices was evident.


The purpose of the present work was to study the interest pattern of school going children in order to make their interest educative.

The study was conducted on a sample of 720 boys and 360 girls, selected through stratified random sampling technique from the institutions of four districts, namely Gorakhpur, Gonda, Basti and Faizabad. The variables considered in the study were sex and grade. The seventh, ninth and eleventh grade students were taken up. The study utilized two techniques to measure the pattern of interest. The tools used were observation and interview with children and with their parents. The test prepared had 165 items each in the
area of stimulation and information. The data thus collected were treated with product-moment correlation technique. The centroid method was used for factorisation to study the nature of clusters; six factor solution for each sex separately had been calculated. The psychological and rational analysis revealed nine areas, namely, aesthetic, play, curiosity, gain-motive, altruistic motive, personal acquisitive instinct, social activity, community life and miscellaneous. The findings were:

1. The six factors, three for each sex, separately gave the extroverted scientific interest, general gusto for life, and game and amusement for girls and outdoor useful activities, general gusto for life, constructive amusements and games for boys;
2. The difference was significant in aesthetic, play, curiosity, altruistic, personal acquisitive instinct and in social activity and community life areas;
3. Interest cannot be categorized in tight homogenous groups; interest gets balanced through education, social conditioning, cultural forces, etc.;
4. Both sexes were governed by the general gusto for life; girls showed their feminine temperament in all the factors obtained; boys reflected their masculine temperament, namely, interest in sports, games, scientific, constructive productive activities, etc.;
5. The age of ninth class was peak age for the expansion of interest in all the nine sets of items; this age was the crucial age for both the
sexes and (6) aesthetic and altruistic area, personal aspect acquisitive instinct were highly preferred among girls, gain motive and play area were nearly common areas for both the sexes and curiosity area, social activity and community life were more liked areas among boys in comparison to girls.

Singh L.13, "Patterns of Educational and Vocational Interest of Adolescents" Ph.D., Psychology, Agra University, 1967.

The purpose of the investigation was to study the pattern of Educational and Vocational Interest of adolescent boys and girls from rural and urban areas. It was hypothesised that: (1) educational and vocational interest of adolescents are not directly related; (2) the urban male and female students have different interest patterns; (3) significant rural sex differences exist in commercial, constructive and agricultural educational groups; (4) significant urban sex differences exist in the literary, scientific, commercial, agricultural, persuasive, social service and house-hold vocations, but both sexes show equal interest in the constructive and aesthetic vocational areas; (5) significant rural sex differences exist in commercial, constructive, aesthetic, agricultural and house-hold vocations but not so in literary, scientific, persuasive and social service vocation;
(6) there is no significant sex difference with regard to educational interest pattern in urban and rural adolescents; (7) significant sex differences exist with regard to vocational interest patterns; (8) urban and rural adolescents have different vocational and educational interest patterns; (9) subjects of courses offered and educational interest are directly related and (10) subjects of courses offered and vocational interest are also related.

The entire student population of urban and rural higher secondary schools and intermediate colleges of Agra District was stratified into four groups, urban male students, urban female students, rural male students and female students. Accordingly stratumwise cluster sampling method was adopted. A group of 500 students consisting of 125 urban boys, and 125 girls, 125 rural girls and 125 boys was drawn. For measuring educational and vocational interest, Educational Interest Inventory (EII) and Vocational Interest Inventory (VII) were prepared. Reliabilities and validities were ascertained. Age and intelligence were controlled by the matched group technique and as regards the grade variable only class IX was selected. Hypotheses concerning relationship were tested by correlational techniques and those related to interest differences were tested by Duncan's Range Test.
The findings revealed that educational and vocational interest of adolescents were not in agreement and thus educational courses of subjects for study and Vocational interest were not directly related. The subject courses offered and the educational interests of male students differed significantly with regard to their educational interest in scientific and constructive areas, but had more or less similar interest as regard literary, commercial, aesthetic and agricultural vocations; significant zonal differences in educational interest of female students existed for the aesthetic and literary groups, but in the scientific, commercial, constructive and agricultural areas, the females of both zones seemed to be equally interested. Significant differences in vocational interest of male students for literary, scientific, commercial, constructive, aesthetic, agricultural, social service and house-hold vocations existed. Interest in persuasive vocation was equal. Urban and rural girls differed significantly with regards to vocational interests in literary, constructive, aesthetic, agricultural, social service and house-hold vocations but interest in scientific, commercial and persuasive areas was equal. Urban males were more interested in constructive work and the least interested in the agricultural courses, while rural group was interested in the aesthetic educational courses. Female urban students were the most
interested in scientific education and the least interested in the agricultural courses. While rural female students were the most interested in literary education and the least interested in agricultural education. Urban males were the most interested in persuasive vocations and rural girls were the least interested in agricultural vocations. The coefficients of correlation between educational and vocational interest, between educational courses of subjects offered and group liked most, between groups offered and vocational liking for them, were 0.089, 0.10, 0.60 respectively. In other words, high school students were studying educational courses which they did not like very much and which seemed to be in line with their vocational preferences.


The main purpose of the study was to develop a standardised instrument to assess the interest of secondary school pupils and their educational vocational choice.

Kuder format was followed in developing the inventory. First, fourteen interest areas were
tentatively selected on the basis of the areas measured by the Kuder Preference Record as well as Chatterji's Non-Language preference Record. Then these areas were presented to pupils of standard X in different schools to write down those areas in which they had some interest and under each of the areas, a number of activities which they thought were indicative of their interest in those areas. After analysing the activities, the following eleven areas were finally selected:

(1) outdoor  (2) computational  (3) engineering  
(4) scientific  (5) medical  (6) literary  
(7) agricultural  (8) persuasive  (9) artistic  
(10) social service and (11) household.

Thus for pilot inventory, 165 t raid s were formed which included a total number of 495 activities and each area being represented by forty five activities. This pilot inventory, with necessary instructions and answersheet was administered to 100 students of standard-X - fifty boys and fifty girls drawn from seven schools. After scoring the answersheets, item analysis was carried out. The final inventory included 132 t raid s which were found to be significant as a result of item analysis. This final inventory was administered to 1071 students selected by proportionate stratified sampling technique. Only 1058 answersheets were used for analysis and preparations of norms. The
answersheet of the standardisation sample were scored and grouped according to sex. Each sex group was further divided according to rural-urban locality and each of these was further arranged in ascending order of age. Means and standard deviations of all the subgroups were used to find significant differences, if any, between the different groups. On the basis of these findings, it was decided to prepare a set of separate norms for rural boys, urban boys, rural girls and urban girls. A second set of norms for boys and girls was also prepared. A third set of norms based on the total sample was also established. The percentile was adopted as the type of norms for the present inventory and the tables of norms were prepared from cumulative percentages. The reliability was estimated by the split-half as well as by the test-retest method. Face validity and construct validity were estimated. An indirect indication of validity by low intercorrelations between the different scales and factorial validity were also attempted for the present inventory.

The present study has resulted in the development of an inventory consisting of 227 valid items presented in 132 traits in twelve statement sheets to measure the vocational interest of the secondary school pupils of Kerala. Answersheets, scoring stencils, a manual containing general background information, instructions for administration and norms for various groups were
also prepared.


The aims of the present study were: (1) to inquire 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 (2) to investigate into the various science competencies, namely, observing, classifying, calculating and collecting data of the students. The study was conducted on a sample of 1000 students 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 zoology; (iii) among the eight units in physics, electricity ranked first and unit of measurement ranked eight; (iv) among the seven units in
chemistry, 'laboratory' activities ranked first and acids and alkalies ranked seventh; (v) among the eleven units in botany, 'flower' got first rank and 'stem' got the last rank; (vi) among seven units in zoology, 'birds' got first rank and 'amphibians' got the 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, states of evolution, observation of feedings, 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 a film were the most liked activities; (xiii) the rank order of the liking was botany, physics, chemistry, while the dislike rank orders 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 of learning, experiment, 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 factor that adversely affected interest in pupils as mentioned by teachers were discouragement at home, parent's ignorance and negligence, lack of facilities at home and school; (xix) scientists were the highest preferred group, while greatmen and non-scientists group, the least preferred; and (xx) the parental encouragement and home facilities were significantly related to the total science interest.

Samal, S. 16 "Construction of Vocational Interest Inventory to study the Interest Pattern of High School Seniors and its Relationship with their Intelligence, socio-economic status and Academic Success" Ph.D., Education, Sambalpur University, 1977.

The objectives of this investigation were to have a differential study of the interest pattern of high school seniors - sexwise and placewise and to study the relationship of interest with intelligence, socio-economic status and academic success.
The study was undertaken on a stratified, randomised sample of 570 boys and 580 girls of tenth class of recognised high schools of Orissa. The Vocational Interest Inventory developed for the purpose was an interactive free response variety of self-reporting instrument giving measures on eight scales of Vocational Interest, namely, scientific, mechanical, agricultural, business, social-service, arts, clerical and administrative. The odd-even reliability of the interest scales ranged from 0.79 to 0.93.

Intercorrelations among the scales varied from 0.06 to 0.31. The instrument was validated against the California Interest Inventory. Assuming that education, occupation, and income are the potential contributors of one's socio-economic status, a scale was devised to measure this variable. Intercorrelations among three aspects of the scale ranged from 0.36 to 0.62. Correlation Coefficients between partial and total weighted scores were 0.85 for education, 0.75 for occupation and 0.77 for income. The CFIT Scale-3 was used to measure the subjects' intelligence. School examination marks in three consecutive examinations in five academic subjects were processed to give estimation of the subjects' academic success. Correlation between vocational interest and other variables was computed by the product-moment and chi-square methods. F-test and t-test were applied for differential study in respect of interest.
The findings of the study were: Sex-wise difference was found significant in administrative, business, social service, and arts scales of interest; place-wise stratification had no impact on variation of interest scores. The sample displayed a very high degree of interest in social service, agriculture and science. Interest in agriculture, business and clerical activities correlated negatively with socio-economic status. None of the interest scales correlated significantly with intelligence and there was no marked difference in interest of the high and low intelligence groups. The trend of relationship between academic success and interest suggested that success in any curricular subject required interest in related vocational area.


The main objectives of the study were: (1) to use free-expression drawings as predictors of children's vocational interests (ii) to prepare norms for the interpretation of vocational interest on the basis of free-expression drawings of children in the age group of 13 to 14 years and (ii) 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, namely, Jaipur, Jodhpur, Udaipur, Ajmer, Kota, and Bikaner in the State of Rajasthan. The development of tool was restricted to predict vocational interest related to medical, teaching and engineering vocations only. For each of these vocations, three types of sample representing in service personnel, trainees and students were selected. This was done in order to develop a reliable and valid scoring scheme. The total sample thus considered of 75 in service personnel, 75 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 interest. 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 interest of the pupils.

SINGH R.P., "Interest Patterns of Successful Students in Different Courses of Study at the Secondary Stage in Uttar Pradesh", Ph.D., Psychology, Lucknow University, 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 and commerce, 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 number 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) clerical interest and (vii) outdoor interest. The final draft of the inventory contained 168 pairs of items. Chi-square test and Bhattacharya's method of measuring divergence between the two multinominal 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 the study brought out significant points in the interest patterns under each course of the study. It was found that (i) under 'literary' 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 the 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 the 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 the case of successful students under the commerce course of the study.
"Application of Multivariate Analysis to Differentiate Several Groups on the Basis of Interest", ISI; Calcutta, 1979.

The main aim of the study was to investigate the difference in interest patterns of the delinquents and the non-delinquents, and to decide appropriate procedure for spotting out delinquently prone children in the population of school going children on the basis of interest.

Interest was measured by using the Chatterji's non-language preference record which was administered on three groups, namely, delinquents (N=125) living in a house of detention, school going children (N=672), and children living in slums (N=125). The school going children were drawn from five boys' and seven girls' schools selected at random from among the Bengali medium schools in Calcutta. The samples included both boys and girls and the environmental conditions of the groups were more or less similar. Difference in the means, the generalized distance between the groups, statistical criterion to determine the group to which an individual belonged were worked out and cross validation study was conducted.

The findings of the study were: (i) the interest pattern of the delinquents was markedly different from that of the school going children. It was also
distinctly different from the interest pattern of the children born and brought up under equivalent environmental conditions. Environmental condition was not necessarily the major determinant of delinquency prone interest pattern, (ii) delinquency prone children could be identified with a high degree of accuracy on the basis of their interest pattern.


The specific objectives of the investigation were: (i) to construct new keys of empirical basis from normative data (ii) to determine the most efficient measure (iii) to study parsimonious nature of vocational interests (iv) to compare the criterion group profiles (v) to determine the overall relationship between the occupational membership and vocational interests (vi) to determine the profile reliability (vii) to examine the applicability of the normal model in the vocational interest measure and (viii) to provide a classificatory procedure.

The ten occupational groups of the normative sample of the co-operative test Development Project of the NCERT were used for the analytical purpose of the study. Data were collected from the official records. There had, however, been certain cuts on the sample size of various criterion groups on account of some
untraced data cards, faking and disproportionate samples. The new keys were developed using Cos-Pi (Sic) approximation to the tetrachoric correlations on its standard error item - discrimination indices. They were validated comparison with the original keys. The interest factors were extracted using the principal component factor analysis method.

The major findings of the study were: (i) when the set of original keys were compared with the new keys in this cross sample comparison of interest patterns, varying degrees of stability of vocational interest patterns were found; (ii) the differential weights for the item formats used in NII were determined with the help of two group discriminant function analysis; (iii) these differential weight have three distinct merits, namely, (a) the reflected efficacy of each format in differentiating the criterion group from the reference group, (b) they provided co-efficient which would be used as regression weight in order to combine, literary the subscores of the four parts of the NII in an optimal way which led to reduction of the forty subscores to ten interest variables and (c) the composite scores obtained by these differential weights were robust in nature and often resulted in normality even when the composing subscore distributions were non-normal; (iv) the most important factor, the first one, was a bipolar, factor with technical interest on
one extreme and literary interest on the other (v) the second important factor was also a bipolar, one with interest in economic and business pursuits as one pole and interest in educational and teaching occupations as the other; (vi) the third important factor represented outdoor interest and interest in protective services opposed to those with interest in medical; (vii) the fourth factor represented interest in secretarial jobs; (viii) all the ten groups under study were found to be distinct from one another when considered on their interest profiles; (ix) regarding the form of subscore distributions, it was found that in most cases the subscores were normally distributed; (x) the reliability coefficients ranged widely and some of the values were found to be negative too.


The main objective of the study was to construct and standardize vocational interest inventory for class Xth students of Hariyana. The first form of the inventory was prepared with the help of interest inventories of Kuder and Strong as well as keeping in view of the job requirement in Hariyana. For the purpose of the selection of items, the opinions of
students, the school teachers and of experts and the inventories already in the field were taken into consideration. The items belonged to ten interest areas, namely, outdoor, mechanical, scientific, literary, artistic, musical, social-service, clerical, business management and household. The first draft of the inventory was administered to 100 students of class X of the school in Hariyana. The items were scored by allotting 2, 1 and 0 for 'like', 'indifferent' and 'dislike' responses, respectively. The analysis of items was done on twenty seven percent upper and lower group basis. Those items for which the mean difference between the two extreme groups were significant were retained. In all, two hundred items formed the final draft of the inventory. Norms were established by administering the final forms of the inventory to 800 students (400 boys and 400 girls) drawn from rural and urban and government / private schools of Hariyana. The norms for the inventory were found in the form of percentiles, standard scores and T-scores. Reliability of the inventory was found out by using split-half and test-retest methods.

The split-half reliability for the different interest areas of the inventory varied from 0.90 to 0.94, test-retest reliability from 0.87 to 0.97. Criterion validity of the inventory was established by finding t-ratio for difference between the means of
criterion group (persons who were already in service) and normal group (students) which was significant. The coefficient of the correlation between the scores of criterion and normal groups was found to vary between 0.70 and 0.90 for different interest areas. The final form of the interest inventory was found to be a reliable and valid tool for knowing the interest of secondary school students of Haryana.


The objectives were (i) to make an investigation of the personality characteristics, namely, reaction to frustration, needs and adjustment and vocational interest of the supernormal, normal and subnormal school children and (ii) to make a comparative study of these personality characteristics among the supernormals, normals and subnormals.

The Jalota's General Mental Ability test was administered to 965 boys and 840 girls belonging to different parts of Rajasthan. Of 965 boys, 50 supernormals, 50 normal and 50 subnormal boys were selected. On the other hand, out of 840 girls, 50
supernormals, 50 normal and 50 subnormal girls were selected. In this way, the sample comprised 300 students (150 males and 150 females). The tools used for collecting data were: Group test for General Mental Ability (Verbal) by Jalota; Group Intelligence Test (Verbal) by Mehta; the Bhatia Battery of Performance Test of Intelligence; an Indian Adaptation of Picture-frustration Study by Uday Pareek; Needs Rating scale by Kumar; an Indian Adaptation of Bell's Adjustment Inventory by Kumar and Thurstone Interest schedule. The data were analysed with the help of analysis of variance followed by t-test.

The findings were: (1) supernormal boys possessed a normal capacity to adjust to a group of normal individuals and to face frustrating situations. Normal boys showed a significantly high obstacle dominance. Subnormal groups had to face frustrating situations. (2) Normal girls seemed to be more teachable for super ego and impunitiveness than the super normal girls. (3) Super normal boys were more teachable than the normal boys in need of achievement. Normal boys were more teachable than the supernormal boys in the needs of abasement and autonomy. The supernormal boys were more teachable than the subnormal boys in the need of exhibition; whereas the subnormal boys were more teachable than the supernormal boys in the need of dependence. The subnormal boys were more teachable than
the normal boys in the need of exhibition; whereas normal boys were more teachable for the need of abasement and autonomy (4) Supernormal girls were more teachable than the normal girls in the needs of dependence and autonomy; supernormal girls were more teachable than the subnormal girls in the need of aggression, dependence, autonomy, and exhibition; subnormal girls were more teachable than the subnormal girls in need of achievement; (5) Supernormal boys had shown the best performance in the field of home, health and emotional adjustment and subnormal boys in the field of home, health and social adjustment. The subnormal and normal boys did differ significantly in the field of social adjustment; (6) Supernormal girls had the best performance in home, health and total adjustment; whereas normal and subnormal girls did not differ significantly in the fields of health, social and emotional adjustment; (7) Normal groups of boys were more teachable in the humanitarian area than the subnormal. In the area of computational and persuasive interests, the group of subnormal boys was more teachable than the group of subnormal girls (8) Normal girls were more teachable in the areas of physical science, executive and humanitarian interest than the subnormal girls. The subnormal girls were more teachable in the areas of biological science and executive interest than the supernormal girls who were more teachable in the linguistic area. The subnormal
girls were more teachable in the biological science, linguistic area of interest than the normal girls who were more teachable in physical science.


The aim was to ascertain the relation between range and depth of interest.

Forty-six teacher trainees, residents of the college hostel, were rated in respect of ten interest areas by three teachers who lived in the same premises. Each judge independently rated each student.

Depth of interest was rated on a five-point scale. For each student the number of areas in which the judge had found him to be interested was his range score, and median of the depth values awarded by the judges to these areas was his depth score. The pooled ratings of range and depth were correlated.

The study revealed that persons having a larger number of interests, which had been found to be an indicator of high intelligence also tended to probe deeper into things in which they had interest; the coefficient of correlation between the pooled ratings of the range and depth was 0.384 which was significant.
at 0.01 level of confidence.

SHARMA, J.N. 24, "Adolescence Geist Interest as Determined by Personality Factors, Anxiety and Sex" Ph.D., Psychology, Agra University, 1982.

The objectives were: (i) to study adolescent interest in terms of impact upon them by personality factors, sex and anxiety, (ii) to determine the functional nature of personality factors, sex and anxiety in their mutual effect while influencing interest as they blossom and flower in relation to personality, sex and anxiety, (iv) to provide factual knowledge about role and status of adolescent interest for being properly utilized in education and guidance programmes of school going pupils.

The sample consisted of 460 subjects. It was selected with the help of the multi-stage random sampling techniques. Subjects represented both boys and girls belonging to arts, science and commerce faculties. Anxiety was measured with the help of the Sinha W.A. Self-Analysis Form (Anxiety Scale). Its split-half and test retest reliability coefficients were 0.86 and 0.73 respectively. A 16 PF questionnaire adapted in Hindi by S.D. Kapoor was used for measuring the personality of subjects. The Geist Picture Inventory adapted by N.S. Chauhan and Govind Tiwari was used for measuring.
Geist interest. The split-half and test-retest reliability coefficients ranged from 0.38 to 0.81 and 0.48 to 0.80 respectively. The data were analysed with the help of factorial design analysis of variance of equal cell size.

The findings were: (1) personality factors affected interest of adolescents; anxiety affected interest independent of sex; sex showed anxiety independence; (2) persuasive interest was promoted by intelligence in high anxiety girls by super ego in girls and by ergic tension in boys; scientific interest was promoted by ego-strength in boys. Literary interest was promoted by intelligence in low anxiety adolescents; artistic interest was promoted by ego and super ego in high anxiety girls, (3) anxiety promoted persuasive interest in boys who were less submissive and more shrewd. It promoted musical interest in emotionally dry, threat-sensitive, self-adequate adolescents as well as in emotionally dry girls; anxiety promoted scientific interest in self-adequate boys as well as in dominant, socially bold or forthright girls. Anxiety promoted literary interest in adolescents possessing ego strength, dominance, surgency, super ego strength, social boldness, and imaginativeness; (4) among high anxiety adolescents, less of submissiveness, more desurgency and shrewdness had masculine leaning for persuasive interest. Among
high anxiety adolescents, shrewdness, self-adequacy and among low anxiety adolescents, social-boldness, guilt proneness, forthrightness and dominance exhibited masculine leaning towards the scientific interest. Among high anxiety adolescents, poor self-sentiment-integration and among low anxiety adolescents, emotional dryness and desurgency had masculine leaning towards dramatic interest. Among high anxiety adolescents, feminine leaning was noted towards musical interest in emotionally dry adolescents; towards scientific interest in socially bold, forthright and dominant adolescents; towards artistic interest in radical, poor self-sentiment oriented adolescents and towards dramatic interests in emotionally dry and desurgent adolescents. Along low anxiety adolescents, there was a masculine leaning towards literary interest. Along low anxiety adolescents, feminine leaning was noted towards persuasive interest in less submissive, more desurgent, and shrewd adolescents; towards musical interest in affectothymic and socially bold adolescents; towards artistic interest in conservative adolescents and towards dramatic interest in affectothymic, poor self-sentiment adolescents.

The objectives of the study were: (i) to study the interest of the higher secondary school-going pupils and (ii) to study the difference in the interests of these students in relation to their parents; socio-economic status, location and personality traits, namely, emotional stability and self-sufficiency.

The interest inventory constructed and standardized by Kuppuswami for urban area was used for data collection. Besides, the High School Personality Questionnaire (HSPQ) for 12 to 18 years by R.B. Cattell translated into Hindi by S.D. Kapoor and K.K. Mehrotra was used for collecting data about two traits of personality. The data were collected from a sample of 1000 pupils selected at random. A factorial design was formulated and analysis of variance was used for drawing conclusions.

Some of the major findings were: (i) the pupils of the urban area were more interested in administrative, computational, scientific, and literary topics than those of the rural area (2) the pupils of the higher socio-economic status group were more interested in the administrative, natural and outdoor, scientific and fine arts topics than those of the lower
SES groups; (3) the children of highly educated parents were more interested in the administrative, computational, mechanical, natural and outdoor, scientific, and fine arts topics than those of less educated parents; (4) the pupils having a high score on the personality trait of emotional stability were more interested in mechanical area than those having a low score on emotional stability; (5) the pupils having a high score on the personality trait of self sufficiency were more interested in the computational, scientific, fine arts and literary areas than those having a low score of self-sufficiency; (6) area of interest and socio-economic status factors appeared to be dependent on each other so far as administrative, fine arts and literary interest were concerned; (7) area of interest and parents' education factors were found to be dependent on each other so far as the computational, mechanical and teaching interest were concerned; (8) socio-economic status and parents' education were found to be dependent on each other so far as the mechanical interest was concerned; (9) socio-economic status and emotional stability were dependent on each other so far as the fine arts interest was concerned; (10) parents' education and self sufficiency were found to be dependent on each other so far as the computational and teaching interest were concerned; (11) emotional stability and self-sufficiency were found to be dependent on each other so far as the mechanical
interest was concerned; (12) the interaction of area of interest, socio-economic status and parents' education were significant at 0.01 level in the case of nature and outdoor and teaching interests and at 0.05 level in the case of scientific interest; (13) the interaction of area of interest, socioeconomic status and self-sufficiency was significant at 0.05 level in the case of scientific interest; (14) the interaction of socioeconomic status, parents' education and emotional stability was significant at 0.05 level in the case of administrative and at 0.01 level in the case of computational interest; (15) the interaction of SES, parents' education and self-sufficiency was significant at 0.01 level in the case of computational, mechanical and literary interest; (16) the interaction of parents' education, emotional stability and self-sufficiency was significant at 0.05 level in the case of computational interest; (17) the interaction of parents' education, emotional stability and area of the interest was significant at 0.01 level and 0.05 level in the case of administrative and natural and outdoor interest respectively; (18) the interaction of emotional stability, self-sufficiency and area of interest was significant at 0.01 level in the case of scientific interest; (19) the interaction of area of interest, parents, education and emotional stability was significant at 0.05 level in the case of mechanical interest; (20) the interaction of area of interest,
SES, parents' education and self-sufficiency. was significant at 0.05 level in the case of administrative and computational interest; (2i) the interaction of parents' education, emotional stability, self-sufficiency and SES was significant at 0.05 level in the case of mechanical interest.


The main aims were: (i) to find out the occupational choices of the girls; (ii) to find out the factors which influenced the occupational choices of girls; (iii) to study the extent of divergence between the occupational choices and vocational interest of girls and (iv) to study the differences among different groups of female students in occupational choices and factor influencing them along with their interest.

An open ended list containing 199 occupations for women was prepared on the basis of a survey conducted in 100 public and private establishments. Similarly, a list of factors influencing occupational choice was also finalized on the basis of an experimental study. An interest inventory in 11 areas was also constructed and standardized.

The findings were: (1) the girls had diversified
occupational choices; (2) the highest factor influencing occupational choice was 'interest' followed by 'serving', humanity/society; 'Serving poor/backward'; 'serving sick/disabled'; 'to see different places', 'to please oneself', 'to be a model for youngsters'; 'economy' and so on; (3) only ten percent of girls were able to make occupational choices in accordance with their vocational interest; (4) no significant difference was found amongst urban and semi-urban girls in the congruence of their occupational choices and vocational interest; however, girls belonging to higher income group were found to have more congruence in their occupational choices and vocational interest.


The objectives of the study were: (1) to locate the areas of interest of School boys in Delhi; (2) to study the impact of age, urban - rural background, socio-economic status of the individual subject, streams and extraversion and introversion on the development of interest, and (iii) to study the relationship of the located interest areas with the independent variables.
The study was conducted on 195 government boys' secondary schools in Delhi. It included 150 urban schools and 45 rural schools. Initially, the sample consisted of 2700 pupils (1390 urban and 1310 rural boys). The final sample consisted of 2529 boys (1290 urban and 1239 rural). The classes VI, VII, and VIII were considered the lower age level covering the 11+ to 13+ age group; classes IX and X covering the 14+ to 16+ age group were considered the middle age level and classes XI and XII covering the 17+ to 19+ age group were taken as the high age level. The classes were also divided subject-wise, such as humanities, commerce and science. The tools used for variables to be measured were: (i) the Socio-Economic Status Scale, (ii) the Interest Test Battery and (iii) the Maudsley Personality Inventory (MPI) adapted by N.K. Dutt to study extraversion and introversion. The data were analysed with the help of coefficient of correlation, analysis of variance and multiple regression analysis.

The main findings of the study were: (1) urban boys had higher interest in academic than rural boys; the rural boys were not much concerned with the choice of a career; (2) the opportunities to appreciate art, poetry, music, dance, painting, drama, etc., were far more widely available to urban boys than to rural boys; (3) there were differences in the development of
interest in health, sports and games among urban and rural boys; (4) rural subjects had lower literary interests than urban subjects; (5) urban subjects had higher mechanical interest than the rural subjects; (6) urban boys had higher interest in outdoor activities and adventures than rural boys; (7) there was no difference in political interest of urban and rural subjects; (8) the urban subjects had higher scientific interest than rural boys; (9) urban and rural subjects had similar interests in sex and romance; (10) there was no significant difference between interest of urban and rural boys; (11) there was a significant difference among the three levels of SES as regards academic interest; the mean scores for the SES level of high, middle and low groups were 49.75, 48.96 and 41.83 respectively; (12) the analysis of variance and multiple regression analysis showed the relationship of SES with aesthetic interest to be significant at 0.01 level; the mean scores for high, middle and low SES level were 39.72, 37.67 and 30.78 respectively; (12) the three socio-economic status groups (high, middle and low) differed significantly in economic interest; (14) the low and middle SES groups had similar mechanical interest and both of them had higher interest in this area than the high SES group; (15) the three SES groups differed from one another in their interest in outdoor activities and adventure; (16) the middle group had higher political interest than the low
and high socio-economic groups; (17) sex and romance were significantly related to socio-economic status as predictor variables; the high and low SES groups had much higher interest than the middle group; (18) the middle group had higher degree of social interest than the other two groups; (19) the commerce group was less interested in academics as compared to the sciences and humanities groups; (20) the aesthetic interest of commerce and science groups was the same, while that of the humanities group was much higher; (21) the commerce group had higher economic interest than the humanities and science groups; (22) science students showed the highest degree of interest in the area of health, sports and games followed by the commerce group and the humanities group; (23) the humanities group had much higher interest in literary activities than the science and commerce groups; (24) the science group had much higher interest in mechanical subjects than the commerce and humanities groups; (25) the commerce group had the highest score in political interest followed by the humanities and science group in order; (26) the humanities group showed the highest interest in religious activities, whereas the commerce and science groups were at par with each other; (27) the science group showed the highest degree of interest in sex and romance followed by the commerce and humanities groups; (28) the humanities group had significantly higher social interest than the commerce and science groups.
(29) introverts had higher interest in academic areas than the extraverts; (30) introverts had higher interest in aesthetic area than extraverts; (31) extraverts were more interested in health, sports and games than introverts; (32) the introverts had higher interest in the literary area than the extraverts; (33) there was no difference in the interest in the mechanical area between the extraverts and introverts; (34) the extraverts had higher interest than introverts in outdoor activities and adventure; (35) the extraverts had much higher political interest than introverts and (36) the introverts had somewhat higher interest in the religious area than extraverts.

SHARMA S., "Family and Peer Group Influence on the Vocational Interests of the Gifted Adolescents studying in different types of Schools" Ph.D., Education, Punjab University, 1986.

The objectives of the study were: (i) to identify the gifted with the help of verbal and non-verbal tests of creative thinking and intelligence tests; (ii) to find out the vocational interests of intelligent, creative and gifted adolescents separately; (iii) to study the vocational interest of intelligent, creative and gifted adolescents across sex; (iv) to find out family and peer group influence on vocational interests; (v) to study the influence of socio-economic
status on the vocational interest of gifted adolescents and (vi) to study the influence of parental aspiration on the vocational interests of gifted adolescents.

The sampling was done in two phases. In the first phase, a sample of 10,000 pupils from 78 schools was selected. They were administered the creativity test and intelligence test. In the second phase, those pupils who had above the 95th percentile in these two tests were selected for the final study. In this way, the final sample comprised 281 pupils with 170 boys and 111 girls. They included 200 pupils (125 boys and 75 girls) identified as intelligent, 20 identified as creative (13 boys and 7 girls) and 71 as gifted. The tools used in the study were: (i) Raven's Standard Progressive Matrices (1956) (ii) Baqer Mehdi Test of Verbal Creative Thinking (1973) (iii) Bansal Vocational Interest Record, (1975); (iv) Kulshreshtha Socio-economic Status Scale (1975); (v) Mathur and Chandel Parental Aspiration scale (1975), and (vi) The Family and Peer Group Influence Scale.

The findings of the study were: (1) the intelligent adolescents showed high interest in scientific area; the creative and gifted adolescents also showed similar interest; (2) the intelligent, creative and gifted boys showed high interest in artistic and executive areas, whereas their girl
counter parts showed high interest in scientific areas; (3) the intelligent, creative and gifted adolescents showed that their own self was more influential in the selection of courses of study, motivation, fulfillment of aspiration, interest and a sense of labour; (4) a majority of adolescents in the intelligent group and creative group who showed high, above average and average interest in different vocational areas came from middle strata of society. But gifted adolescents who showed high and average interest in different vocational areas came from super upper and upper middle socio-economic strata of society; (5) a majority of parents of the intelligent, creative and gifted adolescents had very high aspiration regarding education, job, income, social status, marriage and social roles; (6) because of very high parental aspiration, the parents of the intelligent, creative and gifted adolescents exerted influence for the future vocational interest of their wards.

2.4 Miscellaneous Recent Studies carried Out in India

S. Sunderarajan and A. Ramalingam 29 "Higher Secondary Students' interest in English and their achievement"

The objectives of the present investigation were as follows: (i) To find out if there was any significant difference between the boys and girls
studying in urban and rural Higher Secondary Schools in respect of their interest in English; (ii) To find out if there was any significant positive relationship between their interest in English and their achievement in it.

Cluster sampling technique was used in the selection of the sample. For the purpose of the pilot study, two higher secondary schools from Chidambaram town in the South Arcot District in Tamil Nadu were chosen on the principle of random sampling and in the same way, one more school was chosen from the rural area from immediate surrounding of Chidambaram. From those schools, one "+1" section each was chosen on the same principle and all the 200 students, were given copies of the tool intended for the pilot study.

For the purpose of the final study, three higher secondary schools from the town and three from the rural area were chosen on the random sampling method. The one "+1" section each from those six schools was chosen and all the 459 students studying in those schools were given copies of the final tool. This sample consisted of as many as 146 urban boys, 147 rural boys, 110 urban girls and 56 rural girls.

Tool: A language interest inventory for the purpose was constructed and refined by the investigators. As many as 40 statements revealing the
various activities showing the subjects' interest in English were collected from the following sources: (i) Five professors of English working in the college (ii) Five Professors of Method of Teaching (iii) Ten Higher Secondary teachers of English and (iv) related printed material. There were 40 sections in the Inventory. In each section along with one activity clearly showing the subjects' interest in English, two other activities were included. Then three activities were listed under each section. The subjects were instructed to mark any one of the three activities in each section which they liked the most. Thus, they were instructed to respond to all the 40 sections.

For the purpose of item section, the point bi-serial 'r' for each section was calculated and those items that were having the point bi-serial 'r' significant at 0.01 level were selected to form the final form of the Inventory, which had 30 sections in all. It might be recalled that this final inventory was administered to as many as 459 "+1" students.

Findings: (i) The urban boys and rural boys did not have more interest in English than the urban girls and the rural girls respectively, (ii) The urban boys and the urban girls had more interest in English than the rural boys and rural girls respectively, (iii) The higher secondary students' interest in English and their achievement in it were all positively related.
The objectives of the present study were: (i) to find out the relative importance given to the various educational interests by the boys and girls studying in urban and rural schools; (ii) to find out if there was any significant difference between the boys and girls studying in urban and rural schools in respect of their various educational interests.

Cluster sampling technique was used in the selection of the sample. Two urban schools were chosen at random and two higher secondary sections from each school were once again chosen on the same principle. All the boys and girls belonging to the selected eight sections were involved in the study. This sample consisted of as many as 117 urban girls, 96 urban boys, 95 rural girls and 120 rural boys (N=428).

The Educational Interest Record (EIR) constructed and standardized by Kulshreshtha (1984) was used. This record contains as many as 98 educational subjects / activities belonging to seven different educational interest areas. They were: (i) Agriculture (ii) Commerce (iii) Fine Arts (iv) Home Science (v) Humanities (vi) Science and (vii) Technology. Each of these educational areas had fourteen subjects / activities on the record—seven on the horizontal and
seven on the vertical side. The maximum possible score under each educational interest area was 14, and the minimum was 0; one mark was assigned for each response tick marked and for each area, the total was added horizontally and vertically. A score falling between 10 and 14 showed high interest in that area; a score falling between 4 and 5 showed the average interest in that area and a score falling between 0 and 1 showed a low interest in that area.

Important Findings: (i) A very high interest was shown by urban girls in Fine Arts (47.01%), by urban boys in science (15.63%), by rural girls in Home Science (58.95%) and by rural boys in Agriculture (57.50%). (ii) Rural boys showed more interest than the urban boys in the areas: Agriculture, Commerce, Home Science, Humanities, Science and Technology. (iii) Rural girls showed more interest than the urban girls in the following areas: Commerce, Home Science, Humanities and Science. (iv) Rural boys did not show more interest in Fine Arts than the urban boys. (v) Rural girls did not show more interest than the urban girls in the areas: Agriculture, Fine Arts and Technology.

M. Venkatramana and I.V. Ramana Reddy, "Occupational Choices as related to the Socially Disadvantaged"
A sound occupational choice was of crucial importance in the life of an individual. Crites (1969) states, "the vocational choice of an individual is the appraisal of the chances of entering an occupation and of being well adjusted in it." In the modern civilised society, the individual has got the freedom to choose his or her occupation. He is, however, restricted by certain physical, economic, social and psychological limitations.

The socially disadvantaged (SDA) families were left with limited and restricted opportunities compared to those belonging to socially non-disadvantaged (SND). This limitation might handicap the individual in a significant manner. An empirical investigation comparing the occupational choices of the SDA and SND would throw some light on the proper utilization of human resources.

Coleman and et.al. (1966) asserted that minority pupils did not have ambitions for high status occupations. Cosby (1971) noted that most of the black youth had lower level of occupational aspiration. Rath (1972) and (1974) revealed that tribal children, when compared with high caste Hindu children, aspired for occupations with lower income.

In view of the above mentioned facts, a study was...
carried out to ascertain the relationship between occupational choices and socially disadvantaged pupils.

Sample: The subjects for the investigation were selected by employing random sampling procedure. Altogether 480 socially disadvantaged and 480 socially non-disadvantaged pupils were selected from class X in Rayalaseema region of Andhra Pradesh. Their ages ranged from 14 to 16 years.

Tools used: The occupational choice of the pupils were assessed by using a Personal Data Sheet.

Collection of Data: Information was collected about the occupational choices of the SDA and SND pupils. These choices were categorized into seven groups, namely, medical, engineering, administrative, teaching, legal, clerical and semi-skilled. This classification was based on the occupational preference of not less than 3 percent of the pupils. The number of pupils preferring various occupations under SDA and SND were listed. The Chi-Square test was applied.

Conclusion: There was a significant difference between SDA and SND pupils in their occupational choices.

S. Sundarrajan and S. Rajasekhar "Occupational
Objectives: (a) to find out the most preferred occupation from the list of occupations listed by the various categories of higher secondary students; (b) to check whether there was any association between the categories of students and the occupations they preferred most.

Tool: A list of 25 occupations was prepared after consulting relevant literature available in the field and it was validated by two experts who had done some work in this area. The respondents were instructed to choose any three of them which they liked most and then ranked them as one, two and three in the order of descending preference. Copies of this were administered to the respondents.

Sample: The sample of 422 higher secondary students were chosen at random from the higher secondary schools in Chidambaram. This was representative sample of similar students in Tamil Nadu. The sample consisted of the following sub-samples: Male students: 240, female students: 182; science students: 285, arts students: 137; students of uneducated parents: 47, students of educated parents but non graduates: 300, students of parents who were
graduates: 75, students whose parents were teachers: 64, students whose parents were farmers: 175, students whose parents were doctors: 32, students whose parents were engineers: 49, students whose parents were clerks: 102; thus the total sample consisted of 422.

Conclusions:

The occupation of Teaching got the maximum preference (First) by women students, Arts students and by those whose parents were non-graduates or farmers.

It got the second preference by the students whose parents were teachers or doctors, though all the students gave the first rank to Bank Employment, none had given the first preference to it. Only the second preference was given by arts students and students of uneducated parents. Among the students who gave the first rank to an occupation of a doctor, the first preference was given by science students and those whose parents were graduates or who were teachers or doctors. Only arts students and those whose fathers were engineers showed the least preference to the medical profession. In respect of the occupation of a lawyer, very few gave it the first rank but none gave the first or the second preference. In respect of the occupation of an engineer, all categories except the students whose parents were doctors gave the first rank. The third preference was given by women students and teachers' children. The occupation of a computer
specialist got the second preference only by those students whose parents were engineers. The occupation of an agricultural specialist got only the fifth preference by the women students.

In short, the sex of the students, the subjects they study and their parents' occupation by and large seemed to be associated with students' occupational preferences.

2.5 Studies Carried Out In Gujarat:


The specific objectives of the investigation were: (i) to meet with the need for a device to measure interest and (ii) to help workers in the field of guidance and counselling assisting individuals.

The investigator constructed and standardized an interest inventory for S.S.C. Pupils of Gujarat State covering eleven different areas of interest such as natural science, outdoor, mechanical, fine arts, teaching, administration, literature, social service, clerical, persuasive and computational. The inventory was constructed on the lines of Kuder Preference Record
(KPR) and was administered on a sample of 3921 boys and 979 girls. The sample was drawn from the rural as well as the urban areas. Criterion keys for eight scales were prepared. Test-Retest and split half reliabilities were computed for each sub-scale, which were about 0.84 and 0.94 respectively; criterion groups against which the inventory was validated were selected for each area of interest. The criterion groups for all the sub-scales scored higher in their own field of work than in other fields, which showed validity.

The major findings of the study were: (i) the attempt was made to measure eleven areas of interest. The inventory was successful in measuring only eight of them, namely, administrative, computational, natural, outdoor, mechanical, scientific, teaching, fine arts, and literary; (ii) the present inventory showed that it had items which were very much similar to those of foreign one and they proved to be valid for our purposes. This is conceivable as it is accepted that the main activities in the occupation are the same for all the people. There were significant sex differences. The mean scores varied significantly from boys to girls. This means that sex difference was a factor in deciding a person's field of work. Thus, there were sex differences with regard to different sub-scales of the inventory. The difference between boys and girls on fine arts sub-scales, for example, was statistically significant; girls scored higher than boys. This was in
conformation with the general belief about the artistic nature of two sexes; girls do tend towards greater art activities, (iii) As similar study was taken up to see whether or not there was a significant difference between urban and rural areas, it was observed that the significance of difference was rather low in only four areas, namely, administrative, computational, scientific and literary. It was thought that these differences might be due to the difference in socio-economic status, the educational level, the reference group concept of the status value in jobs, impact of University Campus, facilities for communication; (iv) a study of relationship of aptitudes with interest was made. The present investigator standardized a Mechanical Aptitude Test, for the S.S.C. class pupils of the Gujarat State. The scores on this test and the present inventory were correlated. It was interesting to observe that interests did not appear to have a close relationship to aptitudes. The correlation between the measured interest and measured aptitude was relatively low. This might be due to the fact that a person might have a high mechanical interest but little mechanical aptitude; (v) interest of the pupils in the areas of teaching, science and mechanics were on the top, while they were low for natural and outdoor area.

Badami H.D., 34 "Vocational Interest Inventory"

Students who were either planning to go for
further study or preparing to launch upon a vocational career required to have vocation oriented guidance. In this regard, the counsellor or the teacher required to have a tool which would give a picture of various vocations that were likely to have interests for the students. This vocational Interest Inventory (VII) was developed to meet this demand. It could be successfully used in situation(s) where honest expression of choices can be expected.

The VII was developed on the line of the Thurstone Interest Schedule. It required about 10 to 15 minutes to complete it. It was self-administering. It gave the interest profile for 10 different areas. The vocational areas were: (1) Physical Sciences (PS), (2) Biological Sciences (BS), (3) Computational (C), (4) Business (B), (5) Executive (E), (6) Persuasive (P), (7) Linguistic (L), (8) Humanistic (H), (9) Artistic (A) and (10) Musical (M). Each vocational area includes 10 different vocations. Thus 100 different vocations were presented in the VII. Each vocation appeared twice in the VII, once in the row and again in the column.

The VII was printed on a single sheet of paper in the form of a four page folder. The first page contained space for the general information about the individual and necessary instructions with the due illustrations for taking it; on the last page, space
for writing any 5 vocations the most liked to be pursued and the least liked to take up, and space for drawing profile was offered. On double inside page was printed a large rectangle divided into 10 rows and 10 columns forming 100 cells. In each cell there was printed a pair of vocations. In each cell, they were so arranged that 1st item in any column and the 2nd item in any row represent the obtained profile form.

The main purpose of the VII was to give a brief view of various vocational interests of an individual to enable him to have a right kind of assistance either in further educational planning or in vocational considerations. For calculating average profile, the VII was given to 1,675 subjects of both the sexes drawn from various high schools and colleges in the city of Ahmedabad.

Necessary instructions with due illustrations were given in the beginning. It might be given to an individual or in a group.

The scoring consisted of counting circles in each column and its corresponding row. The score was then recorded for each area in the box provided at the end of each row. The possible range of score was 0 to 20 for each area. These 10 different scores were to be recorded in the profile form on the last page of the
The interest profile was self-interpreting. It gave the picture of relative interests in each area. At a glance, it would point out whether an individual was more interested in certain specific areas than in others. It might even show the various degrees to which he (or she) was interested in several areas. The slope of an individual profile was important in advising an individual about the type of his area of interest.

Reliability and validity: The reliability coefficients were calculated for 150 cases. The coefficients of correlation were calculated for corresponding rows and columns. Coefficients of reliability for 10 different areas varied between 0.78 and 0.90.

The item validity was ascertained by the correlation between the individual item score and the profile score. The VII was validated against the various professional groups belonging to these different areas.

The objectives were (i) to investigate into the interest pattern for different vocations among the school pupils of classes VIII to XII in the schools of Ahmedabad city, (ii) to determine the interest patterns of persons in different vocations, (iii) to compare the pupils interest pattern with those of adults working in different vocations.

She carried out a pilot run of interest inventory on high school and higher secondary school pupils of Ahmedabad City (N=10), covering ten different areas of interest such as scientific, social service, literary, mechanical, persuasive, clerical, outdoor, computational, artistic and musical. The researcher selected cluster sampling and systematic random sampling techniques for the final run. Two schools (Vidyamagar School from Usmanpura and Vishwabharti from Shahpur area) were selected and 572 pupils of grades VIII to XII selected as a cluster from two schools were administered the newly developed inventory. Out of these subjects, 50 pupils from each grade of both the schools were selected by systematic random sampling method. This sample composed the 'Men-in-general' group which consisted of 250 pupils in all. Similarly persons employed in 10 different jobs representing each of the special fields and also a special group of college and university teachers were selected to prepare the criterion keys (The number of subjects selected varied
from 7 to 12 in different fields).

In analysing the data collected, the method of Strong was followed and the criterion keys as well as the men-in-general keys were prepared. They comprised the weights for ten occupational fields and the men-in-general group. Raw scores of all scripts of criterion groups were converted into standard scores. Reliability and validity of the tool were found out by test-retest method \((r=0.34)\) split-half reliability \((r=0.82)\) and Kuder Richardson's formula \((0.31)\); validity being found out by comparing the men-in-general group with different criterion groups.

Mecanhaus Inventory \(^{36}\) (Gujarati Version): This inventory has only historical importance and is used only by the Institute of Vocational Guidance, Ahmedabad run by Government of Gujarat. Translated into Gujarati, it contains 150 items covering 10 areas of interest. However, the institute neither established norms nor estimated its reliability and validity. While guiding the clients (pupils of secondary as well as higher secondary schools), they use raw scores which serve their purpose to some extent only. After some time, it will be totally obsolete as it has not been standardized at all.

2.6 The Outcome of the Study of the Relevant
Literature:
The following aspects were helpful to the present investigator:

1. She could get a total vision of different studies in the area of interest.
2. She could decide a process of standardization of a tool for the study.
3. She could get an idea of the selection of the sample.
4. She could also learn the ways of analysis for establishing norms and establishing reliability and validity.

2.7 How Present Study differed from Other Past Studies

It is apparent from the bird's eye view of the related literature that so far, only Parikh J.C. has tried to construct and standardize vocational interest inventory on Gujarat population. This inventory was developed for Old S.S.C. pupils (now standard XI). Badami H.D. developed vocational interest inventory for college students. Mechanhaus Interest inventory was merely translated into Gujarati version by Vocational Guidance Institute, Gujarat State. Jyoti Desai prepared and tried out an Interest Inventory on a limited sample of High School and Higher Secondary School pupils of Ahmedabad City only at the M.Ed level. However she adopted the method of Strong and Campbell.
In the present study, Likert method of five point scale was adopted. So far as the present investigator knowledge goes, this type of scale (Likert type) would be first of its kind not only in Gujarat State but perhaps all over India. In a newly developed Jackson Vocational Interest survey (JVIS), "all items are of the forced choice type like or Dislike". In "The Career Assessment Inventory", which is a newly developed tool, the author has actually used five point response options from "like very much" to "dislike very much".

In the present investigation, too, the investigator has adopted this method in KPR-vocational; she, instead of having only two forced choices, offered five choices—strongly liked, liked, indifferent, disliked and strongly disliked. Hence, the respondent is compelled to respond to each and every item showing the degree of his liking or disliking. This modification was a major one though the inventory was more or less based on that of Kuder type. Of course, cultural differences were totally taken care of while carrying out tryouts and many items were coined anew while in some cases, some modifications in the statements were made as the investigator did not want to differ much from Kuder, the latter's Vocational Inventory being world-reputed.


16 Ibid. : p. 268.

17 Ibid. : pp. 222-23.


20 Ibid. : pp. 476-77.

21 Ibid. : p. 503.


23 Ibid. : p. 530.

24 Ibid. : pp. 431-32.


26 Ibid. : p. 528.

27 Ibid. : pp. 533-34.

28 Ibid. : p. 539.


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