

## CHAPTER 5

### SUMMARY AND RECOMMENDATIONS

#### 5.1 Introduction

The exploratory investigation reported here is the first of its kind planned to construct and standardise an academic Interest Inventory (verbal) for appraising educational interests of Higher Secondary students of Gujarat on the lines of Strong Campbell Model (S.C.I.I.). The need for designing such instrument for discrimination of students' interest in various fields of study has been recognized for sometime with the rapid and technological advancement where the specialized education is rendered for specialized professions of diversified interests through increased educational facilities. The basis for selection of students at higher education in Gujarat is the total marks obtained at Board Examinations; being merit the only criterion, does not provide adequate information about the students' academic aptitude. Such Inventory is useful for career decision making purposes to conceptualize occupations and job related activities.

Besides knowledge of students for a particular field of study, interests are also equally important to be analysed for the appropriate selection of students. Increasing students population on one hand, and limited teaching resources available, on the other hand, leads to a need for proper selection of students for

appropriate education. However good the instructional material and quality of instruction may be, it is not worth of its use, if students do not have a receptive frame of mind which depends largely on their abilities and interests.

Assuing suitable ability and interests, a studnet will find highest satisfaction if he selects the proper courses of study, for which the interest pattern is most like his own. Researches indicate that educational and vocational interests change relatively little during the college years and after graduation, hence it is reasonable to suppose that if a college student has the same interest as his seniors in a specific field of study or vocation, he will respond in the same way not only at the time his interest are measured as a freshman in college, but a few years later when he is ready to accept a position.

Interest being an affective domain which still remains rather unexplored at higher secondary level in Gujarat, it is essential at this moment that teachers equip themselves with adequately systematized data and measure of interests. Not only an experimental and diagnostic investigation into the interests of XIIth grade students is essential, but an effective guidance is also needed to spot out the most qualified and mature students for a specific field of study, resulting in reduced number of dropouts, no stagnation in education and higher achievement among students. An effective guidance is only possible when all accurate and comprehensive information regarding

interests besides the abilities and aptitude is available. This verbal Educational Interest Inventory will not only be helpful in making a correct academic choice, but will be also an asset to the school teachers, and educational counsellors to guide their students whereby much wasted efforts of individual resources and of teaching institutions will be saved in the changing society like India leading to optimization of human resources being the contemporary national goal.

## **5.2 Objectives Of The Study**

- (i) To construct a verbal Academic Interest Inventory for the twelfth grade higher secondary school students of Gujarat State, for discrimination to diversified fields of study at University level.
- (ii) To standardise the Interest Inventory.
- (iii) To examine the applicability of the new model in educational and vocational interest measure.

## **5.3 Variables**

Interest in the ten fields of study were the independent variables of the present investigation. (i) Agriculture, (ii) Arts, (iii) Commerce, (iv) Fine Arts, (v) Home Science, (vi) Medical

(vii) Performing Arts, (viii) Science, (ix) Social Work and (x) Technology & Engineering; identified as educational scales.

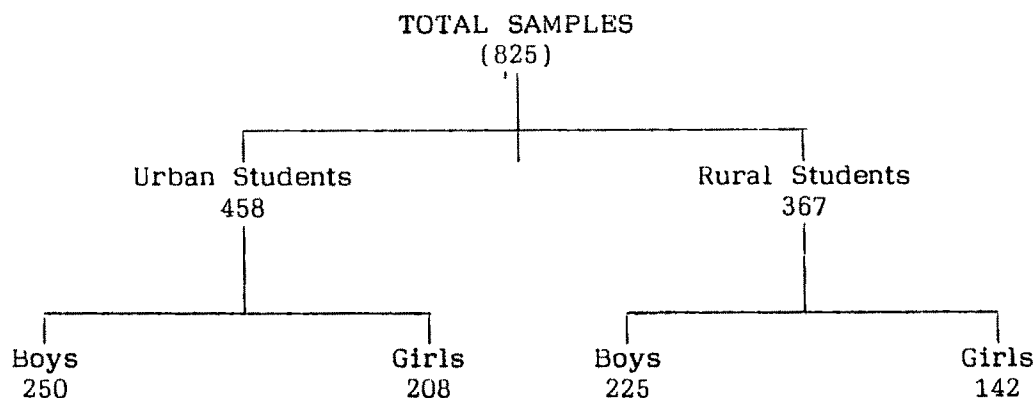
Seven dependent variables under the investigation were (i) occupation, (ii) School subjects, (iii) Related activities (iv) Amusements, (v) Peculiar people, (vi) Preference of one over other things, and (vii) Personality characteristics; identified as sub-tests of Interest Inventory.

#### 5.4 , Sample

All the XIIth grade students of Gujarat of 1989-90 were selected as the population for the present Investigation.

- (1) Criterion groups - The total purposive sample of criterion groups consisting 415 students, (Men-in-Education) were 20 to 50 final year graduate and post-graduate college students of the selected ten fields of study from Baroda, Anand & Surat.
- (ii) Fifty five XIIth grade students (55) of the University Experimental High School Baroda, formed the sample for Pilot study.
- (iii) Norm group : A stratified area (cluster) random sample of 825 XIIth students consisting of whole class was drawn from the five selected districts distributed over five zones of

Gujarat as under.



The five selected districts of Gujarat State were Ahmedabad, Baroda, Mehsana, Panchmahal and Surat. Two schools from Urban as well as Rural areas of the selected five districts were visited by the investigator personally with a prior permission and from January to March 1990, the data were collected from 825 higher secondary students representing Urban as well as Rural areas of Gujarat State. The students were instructed to work with speed and to indicate the first hand responses without consulting anybody. The directions were read out in the class by the investigator and explained on the blackboard whenever required. The data were collected in a Controlled Conducive class climate under the supervision of class teacher and the investigator.

## 5.5 Methodology

### (i) Tool Construction

A rational as well as empirical approach had been made to determine the items on Interest Inventory on the ten selected disciplines through the present cross-sectional and diagnostic investigation. After analysing information regarding seven variables under each of the ten fields of study by interviewing experts, reading literature on vocational guidance from previous studies at master's and doctorate level, educational Journal, abstracts & manuals and from Indian and foreign doctorate vocational Interest Inventories in current use, the first tryout form consisting of 660 items grouped into first five sub-tests was constructed by the investigator. Four hundred items were drawn on the basis of the pooled judgement of the five experts on panel from each of the ten disciplines selected. (men-in-education) A total of 400 items including each of the first five sections having 80 items to which reactions were to be indicated on the three point scale of "Like", "Indifference" and "Dislike". The sixth section contained 65 items where at three point scale the preferences were to be indicated in terms of "Right Column Preference" over "Left Column Preference" and "undecided" in the middle column, whereas seventh section contained 30 items on personality characteristics; to be marked as "yes",

Questionmark" and "No" at three point scale. The items on sixth and seventh sections were directly taken from (SCII) Strong Campbell Interest Inventory. The directions were provided separately for each section on the Interest blank. The separate response sheets were provided to indicate their responses. The items were translated in Gujarati and were arranged under five sections in an omnibus spiral design after coding ten disciplines to avoid subjectivity, Set response marking, as well as faking.

#### **5.6 Administration of Tool**

The English version of the specific educational scale on the related field of study was used with the senior students of the final year graduate and postgraduate course of concerned faculties being the criterion group and items with highest percentage preference indicated by the senior students (men-in-education) under each section of the Interest Blank were selected for the Pilot study.

#### **5.7 Pilot Study**

The Pilot study was conducted by administering the second try-out form having 495 items on the trial base to 55 XIIth grade students of the University Experimental High School, M. S. University of Baroda to establish the two-test reliability with the gap of one month, to check the average time taken for the test,

check the clarity on items among students, in terms of the meaning, directions, construction and new words as well as the scalewise differences in percentage of two independent groups - men-in-general (Pilot group) and men-in-education (Criterion group). After modifying and deleting the items on the basis of the results revealed through percentage difference above 10 as recommended by Campbell as real difference, and highest percentage of preference indicated by Criterion group, 325 items were retained on the final Interest Blank composed of 50 items on each of the first five sub-tests fifty items on the sixth sub-test and 25 items on the seventh sub-test. The total time taken for responding the blank ranged from 20 to 45 minutes, with an average of 30 minutes. The data on final Interest Inventory was collected from 825 XIIth grade students (men-in-general) of Norm group; representing five zones of Gujarat State.

## 5.8 Analysis Of Data

The data gathered with the self reporting Interest Inventory from the responses on 825 XIIth grade students were coded by the investigator. Criterion scores in frequencies, percentages were tabulated by the investigator. The chart method by Strong (Jr.) was employed to determine the differential scoring weights for each item under the ten fields of study by the researcher. Mean scores of differential groups for the preferences on all items of the Interest Blank to develop Norms of ten scales were also calculated with hand scoring.



Various indices such as frequency percentages of like, indifference and dislike, of men-in-general group (825 students), chi-square technique to test the significance difference in interest among boys, girls, Urban and Rural students, and intercorrelations were computed by machine scoring. The standard scores were computed for each of the ten disciplines separately and finally Area-wise and Sex-wise Norms were established.

## 5.9 Results

- (i) The test-retest reliability by Pearson's  $r$  for the whole blank was revealed to be 0.75 which indicated a quite high reliability. The coefficient of stability by calculating average shifts ranged from 0.60 to 0.88 for seven sub-tests of the Interest Inventory. The reliability of the whole Interest blank of the ten educational scales revealed to be in the range of 0.67 to 0.87 obtaining an average reliability of 0.79; which proved to be a quite high relationship among the items on the respective educational scale. Moreover it was observed that students' interests had shown high stability in those fields which were in some way connected with the training given.
- (ii) The  $\chi^2$  value of 325 items for all the four sub-groups Urban, Rural, Boys and Girls revealed to have high significant difference having large values at 0.5, 0.1 and

beyond zero percent levels. This indicated that the technique used to select valid items on the Interest Inventory were highly satisfactory.

- (iii) Internal validity, content validity, concurrent validity were established with empirical evidences; based on mean scores of two independent groups, m.i.g. (Norm group) and m.i.e. (Criterion group), pooled judgement, (Rational approach), real difference on preferences of items of these two groups above 10 percent difference, intercorrelations of the five scales on interest inventory.
- (iv) The differential weights based on the percentages of items under chart method of two groups ranged from  $\pm 4$  to form the scoring key for the ten individual educational scales.
- (v) Four Norms for Urban boys, Urban girls, Rural boys and Rural girls including the general norms for XIIth grade students of Gujarati medium schools of Gujarat State were developed for the classificatory procedure. A procedure to classify an individual student in atleast two disciplines with highest preference (interest) based on Campbells' classification of various (120) occupations on six themes by Holland has been adopted to consider the utility of the construct standardised by the investigator. The present Standardised Interest Inventory can be utilised by teachers,

counsellors, administrators in Gujarat for offering educational and vocational guidance to their students for planning a right future career.

#### 5.10 Recommendations For Further Research

- (1) This verbal Interest Inventory may be standardised on 9th, 10th and 11th grade students to measure the educational interests as well as for placement to higher grades.
- (2) Characteristic Interest patterns of occupational groups can be also studied with the help of this Interest Inventory.
- (3) Interest Patterns of Non-formal secondary level students and adult women can also be researched by this construct.
- (4) Predictive validity can be established on the basis of longitudinal studies with respect to XIIth grade students.
- (5) Educational Interest Patterns of the students of ITIs and Polytechnic Colleges can be also surveyed.