CHAPTER IV

METHODS

Design:

In the present investigation a correlational design was used, in order to study the relationship between need achievement and its components intrinsic need achievement (I-nAch) and extrinsic need achievement (E-nAch) with sex-role orientation (masculinity and femininity), locus of control, risk taking tendency, vocational maturity, values (theoretical, economic, aesthetic, social, political and religious) and interests (fine arts, literacy, science, medical, agriculture, technical, crafts, outdoor activities, sports and household activities). The study was conducted on 200 males and 200 females students and was subjected to stepwise regression. Further the factor analysis was employed to see the pattern of inter-correlations. As factor analysis explains test correlates to the extent they measure common traits. By observing and analysing the pattern of inter-correlations, the operation of the one of the more underlying traits or other sources of common variance is inferred. In the present study in consonance with the above contentions, Principle Axis method of factor analysis was used on 253 values of correlation for non-tribal males and females and tribal males and females separately. The obtained factor matrices were subjected to
rotation through varimax method on four sub samples respectively.

Sample:
The study was conducted on college students. The sample taken for present study is 400 (100 non-tribal males, 100 non-tribal females, 100 tribal males and 100 tribal females) drawn from the different colleges of Himachal Pradesh. The 400 students, 200 tribals and 200 non-tribals were tested in groups of 10-15-20 Ss.

Tools Used:
In the present study Thematic Apperception Test, Bem Sex Role Inventory, Rotter's Internal-External Control Scale, Choice Delimma Questionnaire, Vocational Attitude Maturity Scale, Study of Values and Chatterji's Non-Language Preference Record were administered on the college students.

**Adapted Version of Thematic Apperception Test (TAT)** (Deo and Mohan 1986)

Administration of the Test: This test was introduced to the subjects as a test of "creative imagination". Instructions as given in Atkinson (1958) were given.

"You are going to see a series of pictures and your task is to write a story that is suggested to you by each
picture. Try to imagine what is going on in each picture. Then tell what the people are thinking and feeling, and what they will do." So it was explained to the following four question.

(i) What is Happening? Who are the persons?

(ii) What has led upto this situation? That is what has happened in the past?

(iii) What is being thought? What is wanted? By whom?

(iv) What will happen? What will be done?

These four questions were printed on a sheet of paper with three inch space for writing the answer for each question.

There were four pictures to be shown and each picture was shown for 30 seconds. For writing the response stories, 4 minutes were given for each picture, giving one minute to each of the four questions.

The tester should ask the subject to see the first picture with the signal "START, GO TO THE FIRST PICTURE". After 30 seconds, they should be asked to write answer to the first question. After one minute, instructions should be given to the second question, after one minute again to the third question and after one minute again to the fourth question. When they finish the story for the first picture, given an interval of 15 seconds and go to the second picture and follow the same procedure for the second picture as was detailed for the first picture with the completion of the story for the second picture, given an interval of 15 seconds and go to the third picture. In this fashion, complete the testing work by
going to fourth picture. Including the time for instructions, the whole test took about 35 minutes. Testing was done in groups of 10 to 15 to 20 Ss.

**Scoring of Achievement Motivation:**

The stories were scored by the investigator after learning the method of content analysis as outlined by Smith and Feld (1958). The scoring manuals by McClelland et al. (1958) and Veroff (1958) respectively for obtaining scores on nAch were followed.

A story is to be scored for achievement imagery (AI) only if it fulfils at least one of the following criteria for the achievement imagery.

(i) **Competition with a Standard of Excellence** - One of the characters in the story is engaged in some competitive activity (other than pure cases of aggression), competing either with others or with earlier- achievement of self, where winning or doing well, better than others or better than oneself is explicitly or implicitly stated self-imposed requirement is indicated by good, thorough, systematic, workmen like job, in the implicit statement.

(a) affective concern over the goal attainment, and

(b) certain types of 'Instrumental Activity' are considered as indicating that the desire to complete successfully with a standard of excellence is implicit in the story.
TABLE 1  PERCENTAGE AGREEMENT IN SCORING IMAGERY OF THE INVESTIGATOR WITH EXPERT SCORING OF n-Ach.

<table>
<thead>
<tr>
<th>Motive</th>
<th>Reliability Index</th>
<th>Story Set</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>n-Ach</td>
<td>%</td>
<td>.90</td>
</tr>
</tbody>
</table>

% stands for percent agreement between the investigator and the expert on the presence of motive-related imagery (Smith and Feld, 1958).
(ii) **Unique Accomplishment:** One of the character is involved in accomplishing other than a routine daily task. Something which will bring him personal success and honours, inventions, artistic creations and other extraordinary accomplishments fulfill this criterion. There need no explicit statement of concern over the outcome or direct statement that a good job is wanted, when someone is working on a new invention or is in the process of doing something unique which will be generally accepted as personal accomplishment.

(iii) **Long-term involvement:** One of the characters is in attainment of a long-term achievement goal. Being a success in life, becoming a mechanist, doctor, lawyer, successful businessman and so forth.

A story which fulfills at least one of the above criteria should be scored for achievement imagery (AI) and should be given a score of +1.

**Doubtful Achievement Imagery (TI):**

A story containing some reference to achievement but which fails to meet one of the three criteria for AI is to be scored Doubtful Achievement Imagery (TI) and should be given score of 0 (Zero). The symbol of T indicates that one of the characters is engaged in a common type of task or solving a routine problem. Whenever there is a doubt if the story fulfills at least one of the three criteria for AI, it should be scored as TI with a zero score.
Unrelated Achievement Imagery (UI):

A story in which there is no reference to an achievement goal is to be scored as unrelated achievement imagery (UI). In this type of story there is no reference whatsoever to any type of achievement. Such a story should be given the score of -1. Stories which are scored as TI or UI are not to be scored further for the sub-categories of AI.

(1) Need (N): (N) stated need for achievement. A character in the story expresses the desire to reach an achievement goal, statements expressing "Wanting to be or to do, hoping, determined to get" and similar expressions are scored for need. Each sub-category is scored only once for one story and is given score +1.

(2) Instrumental Activity (I): Overt or mental activity (such as thinking about how to attain the goal, planning, scheming etc.) by one or more characters in the story indicating that something is being done about attaining the achievement goal is considered instrumental activity and is scored I+, I? or I- to indicate whether the result of the instrumental activity is successful, doubtful or unsuccessful. I is scored only once per story even though there may be several instrumental acts mentioned. If a statement in the beginning or at the end of story expresses such as activity it is not scored I e.g., "some people are working" is not scored I. The statement should be
an expression of an activity specifically stated as leading to a goal. A statement at the end of the story, "They will finish the work" is not scored 1. The expression of what has been done in the past is not to be scored 1. The efforts, the actions, the plans, the striving, working that is being done or will be done to achieve a goal should be scored 1.

(3) Anticipatory Goal States (Ga+, Ga−): A character in the story anticipates goal attainment or frustration and failure. The anticipatory goal state is scored positive (Ga+) when someone is thinking about the success he will achieve, expects that the invention will work or the activity will be successful. The anticipatory goal state is scored negative (Ga−) when someone is worried about failure, expects the worst or anticipates that the activity will not be successful. Both Ga+ and Ga− may be scored in the same story but each is scored only once. The statements expressing doubts about the outcome are to be scored Ga−. The achievement related anticipation must be related to the achievement goal in the story.

(4) Obstacles or Block (Bp and Bw): Stories are scored for obstacles when the progress of goal-directed activity is blocked or hindered in some way or the other. Things do not run smoothly. If the obstacle is located within the individual such as lack of confidence or conflict to be overcome inability to make decision, responsibility for some breakdown or some
part of the environment i.e., when it may be located in the world at large e.g. "The invention was almost finished when a part broke down." "His family could not afford to send him for higher education," or "Competition was too much for him," then the story is to be scored for Bw. If there is a doubt whether it is located within the individual or in the world at large, it is to be scored Bw. Indications of past failures are scored Bp whether or not they interfere with the immediate goal directed activity.

(5) **Nurturant Press (Nup):** Forces in the story personnel in source which aid the characters in the story who is engaged in the ongoing achievement related activity are scored Nup. Some one helps, sympathizes, encourages the person striving for achievement. The help must be specifically in the direction of achievement of goal and not merely incidental to it. Press must always be cosidered from the point of view of the characters or characters in the story who are trying to attain the goal.

(6) **Affective States (G+ G-):** Affective or emotional states associated with goal attainment, active mastery frustration are scored for G. When someone in the story experience a positive affective state associated with definite accomplishment such as "He enjoys painting." "He is proud of his accomplishment," "They are satisfied with their invention" or definite objective benefits as a result of successful
achievement such as "His genius is acknowledged by million," "People are proud of him," the G+ is scored. G+ indicates more than mere successful instrumental activity. It is scored only once per story and should be scored when there is a definite statement of positive emotion associated with the achievement-directed activity or a statement of objective benefits as a result of such activity.

When someone in the story experiences a negative affective state associated with failure to attain an achievement goal then G- is scored, e.g. "He is upset over his inability," "He is discouraged about past failure." "He is disgusted with himself." If the statement indicates complete failure and deprivation which allow the negative emotional state, it is scored G-.

Both G+ and G- may appear in the same story in which case both are to be scored.

Mere mention of famous person is not sufficient evidence for scoring G+. The affective state categories are to be scored only when associated with achievement directed activity in the story as in the case with all the sub-categories.

(7) Achievement Thema (Ach Th): Achievement thema is scored when the achievement imagery is stated in such a manner that it becomes the central plot or thema of the story. The whole story should be an elaboration of the achievement behaviour
sequence. If there is a major counter plot, or if there is any doubt about the achievement imagery being central to the plot, thema is not scored. The total score for one story is the sum of scores given for all sub-categories.

The first task is to observe story for the presence of intrinsic achievement imagery and/or extrinsic achievement imagery.

(1) **Criteria Scored for Intrinsic Achievement Imagery:**
(a) Competition with standard of excellence indicated by certain types of Instrumental Activity, e.g. "He is working very carefully on his topic."
(b) Standard of excellence involves no competition with others, but meeting sub-imposed requirements of good performance e.g., "He is working slowly with great thoroughness."
(c) Unique accomplishment, when some is either not involved or is incidental to the accomplishment.
(d) Long-term involvement, only if the character is concerned over attainment of proficiency and perfection in the career.

(2) **Scoring For Extrinsic Achievement Imagery:**
(a) Engagement in some competitive activity, where winning or doing as well as or better than others is actually stated as primary concern.
(b) Affective concern over goal attainment, e.g., "He wins the essay contest and feels proud."
(c) Unique accomplishments are scored when these are solely in the service of making the character famous.
(d) Long-term involvement (e.g. "being a success in life," "becoming a doctor or lawyer etc.") without any reference to perfection or proficiency are to be scored for extrinsic achievement imagery.

Sub-categories (need, instrumental activity, goal anticipation, obstacles, affective states etc.), are scored for their respective achievement goals intrinsic or extrinsic. Thus, for any story, a person may get a maximum score of 11 for I-nAch as well as for E-nAch.

(2) **Bem-Sex Role Inventory (BSRI)** BEM, 1977.

Bem conceptualised masculinity and femininity as two independent aspects of personality rather than using the traditional notion of a single bipolar dimension and BSRI is based on this conception. It consists of separate non-overlapping 'masculinity' and 'femininity' scales, additionally a set of neutral items is included as a social desirability index. The scale consists of 20 masculinity adjectives, 20 femininity adjectives and 20 adjectives neutral with regard to sex which are the filler items.
Administration of Bem-Sex Role Inventory:

The modified version of Bem's sex role inventory was administered in groups of 15 to 20 subjects. The questionnaires were distributed among the subjects and were given the following instructions....

"Below is a list of adjective like compassionate, aggressive, inefficient and so on. These adjectives describes the qualities that a person may have in some degree. You are to read the adjectives one by one and turn to indicate the degree to which each adjective describes you using the given 7-point rating scale, e.g. you may take the adjective "compassionate" and then describe yourself against each one of the 7-points, what you think is most applicable to you, Always, Almost Always, Mostly, Neutral, Sometimes, Almost Never and Never.

Please read each adjective carefully and be sure to mark yourself on each item by putting a tick mark (✓) in one of the seven column."

Scoring:

In BSRI the subject is asked to indicate on 7-point scale the degree to which each characteristic describes the subject. The scale ranges from 1 (never or almost never true) to 7 (always or almost always true).

Following the scoring procedure that was initially advocated by Bem (1977) respondents were assigned 2 scores on
BSRI; Masculinity and Femininity on the basis of their responses, his / her masculinity and femininity scores were computed. Subjects were divided at the scores of both the masculinity and femininity scales. For this research only masculinity and femininity scores were taken.

(3) Locus of Control: Rotter's Internal-External Control Scale (Rotter, 1966)

The Rotter's Locus of Control Scale was chosen for the purpose of the study as it is more a measure of generalized expectancy. It is a 23 item forced choice questionnaire with 6 filler items adopted from the 60 items Jame's Scale. It is scored in the external direction that is, the higher the score the more external the individual. Also known as 'Social Reaction Inventory! It is a questionnaire to find out the way in which certain important events in our society affect different people. Reliability of the scale varies from .49 to .83.

Instructions:

This is a questionnaire to find out the way in which certain important events in our society select different people. Each item consists of a pair of alternatives lettered 'a' or 'b'. Please select the one statement of each pair which you more strongly believe to be the case as far as you are concerned. Be sure to select the one you actually believe to be more true rather than the one you would like to be true.
This is a measure of personal belief; obviously there are no right or wrong answers.

Your answer, either 'a' or 'b' to each question on this inventory, is to be reported beside the question. Please answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice. For each numbered question make an X on the line beside either the a or b, whichever you chose as the statement most true.

In some instances you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you are concerned. Also try to respond to each item independently when making your choice; do not be influenced by your previous choices.

Scoring:

This scale is scored in the external direction, that is, the higher the score the more external the individual. There are 29 total items in this scale.

(4) Choice Dilemma Questionnaire (CDQ): (Kogan and Dorros 1979)

In this scale each item represent a choice dilemma between a risky and safe course of action. A subject's selection of the personality level for the risky alternative success that will make it sufficiently attractive to chose these subjects determinance. For this study six of the Kogan and Darros items were used.
**Instructions:**

On the following pages, you will find a series of situations that are likely to occur in everyday life. The central person in each situation is faced with a choice between the alternative course of action, which we might call X and Y. Alternative X is more desirable than alternative Y, but the probability of attaining or achieving X is less than of attaining or achieving Y for each situation on the scale, you will be asked to indicate the minimum odds of success you would demand before recommending that the more attractive or desirable alternative Y be chosen.

Read each situation carefully, before giving your judgement, try to place yourself in the position of the central person in each of the situation. There are six situations in all. Please do not omit any of them.

**Scoring:**

There are six situations in this test. In each situation there are six points. In one extreme there is the highest risk-taking tendency i.e. the chances are 1 to 10, then the score 6 is given if the subject tick the another extreme that is the subject should not take any risk, then score 1 is given. The risk-taking score is obtained by summing all the items scores. The highest score will be 36 and lowest will be 6.
(5) **Vocational Attitude Maturity Scale**: (Mehta 1987)

This test is to measure the vocational maturity of the subjects. In this test there are twenty items. In front of each sentence there are, two columns as 'Yes and No.' The subject has to respond in items of Yes and No. The respondents are required to choose one of them (Yes or No) according to their feeling.

**Scoring:**

The scoring was done according to the method used by Crites (1971). One score was awarded to the subject for each item on which his / her response agree with the response expected from a vocationally mature subject. One score is to be awarded if the response of the subject is same as given in key. The maximum score in this test can be twenty.

(6) **Study of Value**: (Allport, Vernon and Lindzey, 1966)

In this scale there are two parts. In part one there are thirteen items and in part two there are fourteen items.

**Direction for part one are as:-**

A number of statements with two alternative answers are given. Indicate your personal preference by deciding whether you agree with alternative (a) and disagree with alternative (b) or vice-versa. Or you have a slight preference for (a) over (b) or vice-versa. Some of the alternatives may appear
equally attractive or unattractive to you. Nevertheless, please attempt to choose the alternative that is relatively more acceptable to you.

Example:

(i) If you agree with alternative (a) and disagree with alternative (b) write 3 in between the first line and zero in the second line, thus

(ii) If you agree with (b), disagree with (a) than write zero in the first and 3 in the second line.

(iii) If you have, a slight preference for (a) over (b), write 2 in the first and 1 in the second line.

(iv) If you have a slight preference for (b) over (a) write 1 in the first and 2 in the second line.

Do not write any combination of numbers except one of these four. There is no time limit, but do not linger over any one question or statement and do not leave any of the questions unless you find it really impossible to make a decision.
Part-Two:

Directions:

Each of the given situations or questions is followed by four possible attitudes or answers. Arrange these answers in order of your personal preference by writing, in the appropriate box at the right, a score of 4, 3, 2 or 1. The statement you prefer most give 4 to the statement that is second most attractive give 3 and so on.

Example:

If this were a question and the following statements were attractive choice you would place (4) in the box if the statement appeals to you most. (3) In the box if the statement appeals to you second best (2) In the box if the statement appeals to you third best (1) In the box if the statement represents your interest of preference lest of all.

You may think of answers which would be preferable from your point of view to any of those listed, it is necessary, however, that you make your selection from the alternatives presented,
and arrange all four in order of their desirability, guessing when your preferences are not distinct. If you find it really impossible to state your preference, you may omit the question. Be sure not to assign more than one 4, one 3 etc. to each question.

**Scoring:**

This test provides scores on six values (1) Theoretical, (2) Economic, (3) Aesthetic, (4) Social, (5) Political and (6) Religious values.

On the bottom of page 2, 3, 4, 5, 8, 9 and 11 there are seven columns. In these columns the sum of each row was filled up. In the end of the total of each row was taken out. So the total of each column shows the scores of theoretical, economic, aesthetic, social, political and religious values respectively.

(7) **Chatterji's Non-Language Preference Record:** (Chatterji, 1960)

The choice of an educational career or vocational field of training is a crucial problem for a student. In the presence of the variety of field available it becomes a formidable task to study each in relation to a particular individual for finding out those which are most suitable. Moreover it is very difficult for the average person to know accurately which field he / she is really most interested in, simply because he / she does not know the requirements and the
activities involved in each of these fields. But at the same
time he / she could possibly identify specific activities which
he / she likes or dislikes and from this list of his likes and
dislikes the field which would be best suited for his / her
could be identified. After the field to be looked into have
been narrowed down, they could be considered in detail for
selecting the careers most suitable for him / her.

Chatterji's Non-Language Record helps in identifying
these fields. It measures interest in ten broad interest
areas, viz., Fine Arts, Literary work, Scientific, Medical,
Agriculture, Technical, Crafts, Outdoor, Sports and Household
work.

Administration of The Test:

Students taking the preference record are given a copy
of the record and an answer sheet, and are asked to read the
directions given. After it is clear that each one has
understood what to do, they are asked to indicate their
preference, on the answer sheet by putting X marks in the
appropriate places.

There is no time limit, but students usually finish
within 45 minutes. In a few cases it may need a bit longer
time. The instructions should be given in the local language.
Exact wording is not so important. The most important thing is
to be sure each student understands what he / she is to do, and
how he / she is to indicate his / her answers.
Directions Given to the Subjects:

The following instructions should be given to the students. "The booklet is full of pictures of people doing things. There are three pictures in each set. You are to answer every set. For each set, choose the one thing you would like best to do, and the one thing you would like least to do write 'X' in the circles under the letters of the two things on the Answer sheet.

You have to choose one of the three "Most liked" and one of the three as "least liked." If you mark the one which you liked best, with a X after the plus (+) sign. If you mark the one that you liked least, with a X after the minus(−) sign.

Even if you like all three, you must still choose. Choose the one that you like most. It is the one that you have to choose first out of the three, then choose the one that you like least of the three.

There are no 'right' answers, and no 'wrong' answers. Different people are interested in different things. The only 'right' answer is the answer which shows what you are interested in.

Write your name, age, class and name of the college on the answer sheet. Do not write anything on or in the booklet. These booklets will be used again, for other students. As soon as you have finished writing your name etc., on the answer sheet, open to page 1 and start answering on the answer sheet. Try to understand the pictures yourself. If you are not quite
sure, guess. Be sure to answer all the items.

Scoring:

The answer sheet has been designed for hand scoring purposes and there are separate scoring masks for each of the scale. Scoring all the scales usually takes 15 to 20 minutes per answer sheet.

Place the scoring mask on the answer sheet. One will find two stars (X), one at top and one at the bottom of the answer sheet. There is a hole in the scoring mask for each star. Use these to be sure that the scoring mask is lined up correctly. Then count each place where the student has marked a X in a space under a hole. Write the total number of X's in the space marked Raw score.

One can quickly check the accuracy of the scoring as follows: Count the number of holes in which there is no X (i.e. the number of blanks) and there to the number of X's. The total should equal the total number of holes in the scoring mask, it is easiest to start counting after the number of X's.