Design

The primary aim of the present investigation was to study the relationship of Sensation Seeking with Eysenckian dimensions of personality, viz., Psychoticism, Extraversion, Neuroticism and Lie (Social Desirability) Scale; Impulsiveness, Venturesomeness, Machiavellianism, Vividness of mental imagery in seven sense modalities, total score on Vividness of mental imagery, Murray's needs as measured by Edwards Personal Preference Schedule and Academic achievement among college students. Correlates of Sensation Seeking were studied in both the sexes.

To measure Sensation Seeking, the Sensation Seeking Scale, Form V constructed by Zuckerman (1979) was employed. The revised version of the Eysenck Personality Questionnaire (EPQ-R) developed by Eysenck, Eysenck and Barrett (1985) was used to measure the personality dimensions of Psychoticism, Extraversion, Neuroticism and Lie (Social Desirability) Scale. Impulsiveness and Venturesomeness were measured using Impulsiveness Questionnaire (IV5) developed by Eysenck and Eysenck (1978). Machiavellianism was measured by Mach IV Scale constructed by Christie and Geis (1970a). Sheehan's (1967) revised version of Bett's (1909) Questionnaire Upon Mental Imagery was used to measure Vividness of mental imagery. The Edwards Personal
Preference Schedule constructed by Edwards (1959), was employed to measure Murray's needs. Academic achievement was measured by taking the average of the marks obtained by the subjects in the last two annual examinations consecutively.

Sample

The sample consisting of 500 undergraduate college students (arts, science and commerce) was drawn randomly from various colleges of Chandigarh. The total sample comprised of 250 males and 250 females. The age range for males was 17 to 22 years and the age range for females was 16 to 21 years. The variables of marital status, employment and urban-rural background were controlled since all the subjects were unmarried, unemployed and belonged to urban area. Majority of them belonged to middle socio-economic income group. They were comparable in age and educational qualifications.

Tests And Tools

The following standardized tests were used:

1. Sensation Seeking Scale, Form V (Zuckerman, 1979).
2. Eysenck Personality Questionnaire - Revised (Eysenck, Eysenck and Barrett, 1985).
5. Sheehan's revised version of Betts' Questionnaire Upon Mental Imagery (Sheehan, 1967).

**Sensation Seeking Scale – Form V** (Zuckerman, 1979).

The Sensation Seeking Scale (SSS) was developed to measure individual differences in optimal levels of stimulation and arousal.

For the present study Form V of the Sensation Seeking Scale was used which was developed by Zuckerman (1979). The Sensation Seeking Scale has the following four subscales:

1. **Thrill and Adventure Seeking (TAS)** This scale consists of items expressing desire to engage in sports or activities involving some physical danger or risk such as mountain climbing, parachute jumping, scuba diving, speeding in a car, etc.

2. **Experience Seeking (ES)** This scale contains items describing the desire to seek new experiences
through mind and senses by living in a nonconforming life style with unconventional friends and through travel.

3. **Disinhibition (Dis)** This scale was named for the items describing the need to disinhibit behaviour in the social sphere by drinking, partying and seeking variety in sexual partners.

4. **Boredom Susceptibility (BS)** This scale contains items which measure an aversion for repetitive experience of any kind, routine work, or even dull or predictable people. Other items of the subscale measure a restless reaction when things are unchanging.

This scale contains 40 items, 10 items representing each of the four subscales. It also yields a total score of Sensation Seeking based on the sum of the four subscales. Zuckerman reported low positive correlations among these four subscales.

Alpha reliabilities of Sensation Seeking Scale, Form V (four subscales and Total Sensation Seeking Score) was reported to range between .59 to .86 (Zuckerman, 1979); .60 to .83 (Corulla, 1987) and .60 to .80 (Corulla, 1989) for both sexes. Ridgeway and Russell (1980) reported
coefficient $\alpha$ of .75 for the Total Sensation Seeking Score.

Zuckerman (1979) reported test-retest reliability of Sensation Seeking Scale, Form V to range from .70 to .94.

Concurrent validity of Zuckerman's Sensation Seeking Scale, Form V was established with Pearson's Novelty Experiencing Scale (Pearson, 1970, 1971) and Garlington and Shimota's Change Seeker Index (Garlington and Shimota, 1964).

Zuckerman (1979) also reported that these four subscales demonstrated a high degree of stability and invariance across sex and culture. Sensation Seeking Scale has been translated into various languages and successfully used in studies conducted in different countries (Berkowitz, 1967; Magaro et al., 1979). Ball et al. (1983) for Australian subjects, Birenbaum (1986) for Israeli subjects and Rowland and Franken (1986) for Canadian subjects also found evidence for cross-sex and cross-cultural generality of four dimensional model of Sensation Seeking.

In India Sensation Seeking Scale has been used by Rao (1978) and Mahanta (1983).
Eysenck Personality Questionnaire - Revised (EPQ-R) (Eysenck, Eysenck and Barrett, 1985)

Eysenck Personality Questionnaire - Revised (EPQ-R) has been developed by Eysenck, Eysenck and Barrett (1985). The Eysenck Personality Questionnaire was originally constructed by Eysenck and Eysenck (1975) to measure Psychoticism (P), Extraversion (E) and Neuroticism (N). It also consists of a Lie (Social Desirability) Scale.

Psychoticism refers to a tendency in a person to be not caring for people, troublesome and not fitting in anywhere, lacking in feeling and empathy and being altogether insensitive.

Extraversion refers to a tendency in an individual to be outgoing, uninhibited, impulsive and socially inclined.

Neuroticism refers to a tendency in a person to be anxious, worrying, overresponsive, depressed and reacting too strongly to all sorts of stimuli.

Lie (Social Desirability) Scale measures a tendency on the part of some individuals to 'fake good'.

The scale was revised by Eysenck, Eysenck and Barrett (1985) to improve the psychometric weaknesses of the Psychoticism scale. The revised version of the
scale consists of hundred dichotomously responded items with thirty two items to measure Psychoticism, twenty three items to measure Extraversion, twenty four items to measure Neuroticism and twenty one items to measure Lie (Social Desirability) score.

Alpha reliabilities of the Eysenck's Personality Questionnaire - Revised were reported to range between .73 to .90 (Eysenck et al., 1985); .79 to .87 (Corulla, 1987) and .77 to .84 (Corulla, 1989) for both sexes.


**Impulsiveness Questionnaire**  
(Eysenck and Eysenck, 1978)

The Impulsiveness Questionnaire was developed and constructed by Eysenck and Eysenck (1978) to measure three dimensions of personality viz., Impulsiveness (Imp), Venturesomeness (Vent) and Empathy (E). This questionnaire
consists of fifty four dichotomously responded items with nineteen items to measure Impulsiveness, sixteen to measure Venturesomeness and nineteen to measure Empathy. However, for the present study only Impulsiveness and Venturesomeness dimensions have been studied in relation to Sensation Seeking.

**Impulsiveness** refers to a tendency in individuals to evaluate a situation as being potentially dangerous or risky.

**Venturesomeness** refers to a tendency in individuals to perceive risk but to choose to take a gamble.

Alpha reliabilities of Impulsiveness and Venturesomeness scale were reported to range between .83 to .85 (Eysenck et al., 1985); .78 to .84 (Corulla, 1987 and .74 to .83 (Corulla, 1989) for both sexes.

**Mach IV Scale**  
(Christie and Geis, 1970a)

Mach IV Scale was constructed by Christie and Geis (1970a) to measure Machiavellianism. The term Machiavellianism describes people who express their power motivation by manipulating others in a deceptive and unscrupulous fashion (Christie and Geis, 1970a). It consists of twenty items. It is a 7-point Likert type scale with 10 positively
and 10 negatively worded items. The internal consistency of the Mach IV Scale ranges between .70 to .80 as reported by Christie (1970) and Zook and Sipps (1985). Starr (1975) reported split-half reliability of .70 for the scale for both sexes. Kaestner et al. (1977a) have also confirmed the test-retest reliability and validity of the Mach IV Scale.


Sheehan's (1967) revised version of Bett's (1909) Questionnaire Upon Mental Imagery was developed to measure Vividness of mental imagery in seven sense modalities, viz., visual, auditory, cutaneous, kinaesthetic, gustatory, olfactory and organic. The test consists of thirtyfive items, five items for measuring Vividness of mental imagery in each sense modality. In addition a total score on Vividness of mental imagery can also be obtained by adding scores obtained for each of the seven sense modalities.
The subject's task was to rate the vividness of his imagery for each item on a seven point scale, e.g., if the image aroused by an item of this test was perfectly clear and as vivid as the actual experience, then the subject was to give a rating of 1, if it was very clear and as vivid as the actual experience then subject was to give a rating of 2, moderately clear and vivid then the rating would be 3 by the subject, not clear or vivid but recognizable than rating would be 4 by the subject, vague and dim then subject was to give a rating of 5, if the image was so vague and dim as to be hardly discernible then the rating would be 6 by the subject and lastly if there was no image present at all then subject was to give a rating of 7. A low rating by the subject would thus indicate greater vividness of mental imagery on the part of the respondent, while a high rating on the scale would indicate low vividness of mental imagery.

The test-retest reliability for Sheehan's revised version of Bett's Questionnaire Upon Mental Imagery was reported to be .78 by Sheehan (1967); .91 by Evans and Kamemoto (1973) and .95 by White et al. (1977a and b).

Internal reliability of .95 was reported by Juhasz (1972) for this scale. Westcott and Rosenstock (1976) also reported high internal consistency for this scale.
This test has been used in number of studies by Sutcliffe (1963, 1964), Sheehan (1966, 1967), Kessel (1972), White et al. (1977 a and b), Richardson (1977), Ashton and White (1980) and Smith and Over' (1988). It has also been used in India by Rao (1978).

**Edwards Personal Preference Schedule**  
(Edwards, 1959)

The Edwards Personal Preference Schedule (EPPS) constructed by Edwards (1959) was designed primarily to measure a number of relatively independent normal personality variables. The variables have their origin in a test of manifest needs presented by Murray (1938). The names that have been assigned to the variables are those used by Murray.

The Edwards Personal Preference Schedule provides measures of 15 personality variables. The names and description of the variables is as follows:

1. **Achievement (ach)** Need for achievement suggests a strong need to do one's best, to be successful, to accomplish tasks requiring skill and effort, to be a recognized authority, to accomplish something of great significance, to do a difficult job well, to solve difficult problems and puzzles.
2. **Deference (def)** Need for deference involves getting suggestions from others, to find out what others think, to follow instructions and to do what is expected, to praise others, to conform to custom and avoid the unconventional, to let others make decisions.

3. **Order (ord)** Need for order indicates a strong need to have written work neat and organized, to make plans before starting on a difficult task, to make advance plans when taking a trip, to have things arranged so that they run smoothly without change.

4. **Exhibition (exh)** Need for exhibition suggests the need to say witty and clever things, to talk about personal adventures and experiences, to have others comment upon one's appearance, to ask questions others cannot answer.

5. **Autonomy (aut)** Need for autonomy indicates a need to feel free to do what one wants, to do things that are unconventional, to be independent of others in making decisions and to avoid responsibilities and obligations.
6. **Affiliation (aff)** Need for affiliation implies a need to be loyal to friends, to participate in friendly groups, to form new friendships, to do things with friends rather than alone and to form strong attachments.

7. **Intraception (int):** Need for intraception denotes a strong need to analyse one's motives and feelings, to observe others, to put one's self in another's place, to analyse the behaviour of others and to predict how others will act.

8. **Succorance (suc)** Need for succorance implies a strong need for affection, to have others provide help when in trouble, to seek encouragement from others, to receive a great deal of affection from others, to have others feel sorry when one is sick, to have a fuss made over when one is hurt.

9. **Dominance (dom)** Need for dominance indicates a strong need to argue from one's point of view, to be a leader in groups to which one belongs, to make group decisions and to supervise and direct the actions of others.

10. **Abasement (aba)** Need for abasement suggests a
need to feel guilty when one does something wrong, to accept blame when things do not go right, to feel timid in the presence of superiors and to feel inferior to others in most respects.

11. **Nurturance (nur)** Need for nurturance indicates a strong need to help friends when they are in trouble, to treat others with kindness and sympathy, to forgive others, to be generous and to have others confide in one about personal problems.

12. **Change (chg)** Need for change means a great need to do new and different things, to travel, to meet new people, to experience novelty and change in daily routine, to move about the country and live in different places and to participate in new fads and fashions.

13. **Endurance (end)** Need for endurance denotes a need to keep at a job till it is finished, to keep at a puzzle or problem until it is solved, to stick to a problem even though it may seem as if no progress is being made.

14. **Heterosexuality (het)** Need for heterosexuality suggests a strong need to go out with members of the opposite
sex, to engage in social activities with the opposite sex, to be regarded as physically attractive by those of the opposite sex.

15. **Aggression (agg)** Need for aggression denotes a need to attack contrary points of view, to tell others what one thinks about them, to criticize others publically, to get revenge for insults and to blame others when things go wrong.

The Edwards Personal Preference Schedule consists of 225 pairs of statements and the subject is asked to choose the one which is more characteristic of him. In the scale an attempt has been made to minimize the influence of social desirability.

The intercorrelations among the variables are in general quite low. The low values of the intercorrelations indicate that the variables being measured by the Edwards Personal Preference Schedule are relatively independent.

This scale has been found to demonstrate adequate validity (Edwards, 1959). Split-half reliability coefficients were determined by Edwards (1959) for the 15 personality variables. These coefficients range from .60 to .87.
The Edwards Personal Preference Schedule has been widely used in India by Bhatnagar (1967), Raina (1970), Dhaliwal (1979) and Vasesi (1985).

**Academic Achievement**

Academic achievement was measured by taking the average of marks obtained by the students in the last two annual examinations consecutively.

**Procedure**

All the subjects were contacted personally and requested to volunteer for the testing schedules. Rapport was established with each subject and they were assured that the results and any information they would give would be kept strictly confidential. They were requested to cooperate and answer truthfully.

The testing schedule was started by asking the subjects to fill the Sensation Seeking Scale, followed by Impulsiveness Questionnaire. Next the Eysenck's Personality Questionnaire followed by Mach IV Scale was administered. Then Sheehan's revised version of Bett's Questionnaire Upon Mental Imagery was administered. The last test to be administered was Edwards Personal Preference Schedule. The aforementioned questionnaires were administered in three sessions to groups of 15 to 20 subjects.
each. Subjects were asked to fill up their Academic achievement scores which were also verified from college records.

**Instructions**

**Instructions For The Sensation Seeking Scale**

**Form V**

Instructions for the Sensation Seeking Scale were:

"This questionnaire is a means of reporting your attitudes about levels of stimulation. There are no 'right' or 'wrong' answers. Please consider and respond to all statements. Be frank and give your honest appraisal of yourself."

**Instructions For The Eysenck Personality Questionnaire - Revised**

Instructions for the Eysenck Personality Questionnaire - Revised were: "Please answer each question by putting a circle around the 'Yes' or 'No', following the question. There are no right or wrong answers and no trick questions. Work quickly and do not think too long about the exact meaning of the questions. Please check that you have answered all the questions."
Instructions For The Impulsiveness Questionnaire

Instructions for the Impulsiveness Questionnaire were: "Please answer each question by putting a circle around the 'Yes' or the 'No' following the questions. There are no right or wrong answers and no trick questions. Work quickly and do not think too long about the exact meaning of the questions."

Instructions For The Mach IV Scale

The text of instructions for Mach IV Scale was as follows: "Listed below are a number of statements. Each represents a commonly held opinion and there are no right or wrong answers. You will probably disagree with some items and agree with others. We are interested in the extent to which you agree or disagree with such matters of opinion. Read each statement carefully. Then indicate the extent to which you agree or disagree by circling the appropriate number ranging from 1 (strongly agree) to 7 (strongly disagree). First impressions are usually best in such matters. Read each statement, decide if you agree or disagree and the strength of your opinion and then circle the appropriate number on the answer sheet. Give your opinion on every statement. If you find that the numbers to be used in answering do not adequately
indicate your opinion, circle the one that is closest to the way you feel."

Instructions For Sheehan's Revised Version Of Bett's Questionnaire Upon Mental Imagery

Instructions for Sheehan's revised version of Bett's Questionnaire Upon Mental Imagery were: "The aim of this test is to determine the vividness of your imagery. The items of the test will bring certain images to your mind. You are to rate the vividness of each image by reference to the accompanying rating scale ranging from 1 (Perfectly clear and as vivid as the actual experience) to 7 (No image present at all, you only 'Knowing that you are thinking of the object). For example, if your image is 'Vague and dim' you give it a rating of 5. Record your answer in the brackets provided after each item. Just write the appropriate number after each item. Before you start the test, familiarize yourself with the different categories on the rating scale. Try to do each of it separately independent of how you may have done other items."

Instructions For The Edwards Personal Preference Schedule

Instructions for the Edwards Personal Preference Schedule were: "This schedule consists of a number of
pairs of statements about things you may or may not like, about ways in which you may or may not feel. If you like both A and B, in that case you choose the one you like better. If you dislike both A and B, then you should choose the one that you dislike less. Similarly, if both statements describe how you feel you should choose the one which you think is more characteristic. If neither statement accurately describes how you feel, then you should choose the one which you consider to be less inaccurate. Your choice, in each instance, should be in terms of what you like and how you feel at the present time and not in terms of what you think you should like and how you think you should feel. This is not a test. There are no right or wrong answers. Your choices should be a description of your own personal likes and feelings. Make a choice for every pair of statement: do not skip any. Make no marks in the booklet. On the separate answer sheet are numbers corresponding to the numbers of the pairs of statements. Check to be sure you are marking for the same item number as the item you are reading in the booklet. For each numbered item draw a circle around A or B to indicate the statement you have chosen.

Scoring

Scoring on all the aforementioned tests viz.,
the Sensation Seeking Scale, the Eysenck Personality Questionnaire - Revised, Impulsiveness Questionnaire, Mach IV Scale, Sheehan's revised version of Bett's Questionnaire Upon Mental Imagery and Edwards Personal Preference Schedule was done according to the procedures given in the manuals of each test. These raw scores along with Academic achievement scores were used for statistical analysis.