CHAPTER - II
REVIEW OF THE LITERATURE

A comprehensive review of literature is a must in any research endeavour. The major purpose for reviewing literature is to demonstrate the relationship between completed researches of the topic under investigation. Good, Barr and Scates have mentioned that main function of the review of literature is to show whether the evidence already available solves the problem adequately without investigation and thus to avoid the risk and duplication to provide ideas, theories, explanations or hypotheses valuable in formulating the problem, to suggest methods of research appropriate to the problem, to locate comparative data useful in the interpretation of results and to contribute to general scholarships of the investigation.

The present study reads specifically as, “risk taking behaviour in relation to intelligence and creativity among secondary school students”, in which thinking process considered to be the core of risk taking and decision making process. Thinking emerges from doubts, perplexities and uncertainties. Likewise, risk taking is also a state of uncertainty. Both types of thinking abilities i.e. convergent and divergent are highly correlated with risk taking for research indicate, creative persons are adventurous, courageous and curious. Their curiosity stimulates them to explore the unknown and to undertake the risks involved in unraveling the mysteries of the yet unexplored human areas and endeavors (Agarwal and Kumari, 1982).
The inferences drawn regarding the nature of relationship between creativity and risk taking tendency are based on the use of wide ranging instruments and procedures, varying from general observations made from the study of life histories of eminent creative persons who make scientific conclusions drawn from well designed systematic studies. For estimating risk taking tendency, some of the researchers employed its specific full-fledged tests, while others estimated it in terms of its scores on only one dimension of a multidimensional personality test. Quite a few derived their results from the presence of such traits in their subjects as courage, curiosity and venturesome which research has established, are characteristics of the personality of creative persons and are associated with risk taking behaviour. Major studies following in all these categories are examined here.

The studies in relation to risk, intelligence, creativity and socio-economic status which the investigator has gone through the different sources of literature have considered it to be fit to put all such studies into the following segments by taking into account variable wise research and developments and improvements made by other investigators. Going by such a segmental or fragmental categorization is simply made by the investigator which may not be construed by the readers as any standard or approved plan for proposition. It is further made clear that the investigator has found it to be convenient and suitable in categorizing the below mentioned studies in the light of the objectives of the study.
2.1 RISK TAKING BEHAVIOUR AND INTELLIGENCE

Nicolay (1966) hypothesized that risk taker possessed less intellectual and creative ability. On the basis of the findings of his research, he found that non risk takers showed themselves superior in quantitative ability. He suggested that this difference in quantitative ability may have implications for the correctness or incorrectness with which risk takers and non risk takers estimate the probabilities of events.

Pankove (1967) studied individual difference in risk taking in a sample of 162 middle and risks taking were analyzed to determine certain selected relationships and concluded that creativity bears a more powerful relationship to risk taking than does intelligence.

Pankove (1967) conducted a study to determine whether a relationship existed between creativity and risk taking and found that creativity and intelligence exerted a combined effect on risk taking. Creativity, however, exerted a somewhat greater influence.

Jose (1970) investigated the relationship of convergent and divergent thinking with taking risk and anxiety but found positive relationship only between risk taking and convergent thinking.

Dave and Dave (1972) studied some organismic experimental and psycho-social correlates of risk taking in a game of pure chance and found that students with high and low verbal intelligence as well as academic achievement preferred to take risk than the moderate groups.
Rudder (1972) his investigation was sought to determine the relationship, in fifth grade children, between semantic divergent thinking and different types of risk taking. Also studied was the pattern of relationships between types of risk taking behaviour and the variables of: 1. Types of divergent thinking, 2. need for achievement, 3. sex, and 4. IQ. The subjects were 147 fifth graders from two schools within a middle class community. Obvious, remote and flexible divergent thinking were measured by three tests selected from Guilford’s Battery. The risk situations involved a game of chance and an academic risk, while remote and flexible divergence correlated with it significantly and negatively. With academic risk taking as the dependent variable, IQ accounted for 13% of the variance. There were no statistically significant relationships between any of the variables studied and risk taking in a game of chance.

Sharma (1990) studied risk taking behaviour in relation to cognitive and non-cognitive attributes and found that (i) students having low risk-taking behaviour are more intelligent as compared to the students having high Risk taking behaviour. (ii) The magnitude of relationship between risk taking behaviour and intelligence on partialling out the influence of creativity is found to be negligible in male and moderate in female students. (iii) The magnitude of relationship between risk taking behaviour and creativity on partialling out the influence of intelligence is found to be moderate in males as well as in female students.

Saran (2003) conducted a study to know the relationship between risk taking behaviour and intelligence and to compare the risk taking behaviour of rural and urban students. She employed descriptive survey method of research. Random
sampling technique was used to raise the sample. The sample consisted of tenth class students of higher/senior secondary schools of Ludhiana district. Final sample was comprised of 219 students. The sample was distributed among rural and urban boys and girls students. Risk taking questionnaire by Sinha and Arora and Raven’s Standard Progressive Matrices were used as tools to collect the data. Her study concluded that (i) No significant correlation exist between risk taking and intelligence, (ii) Average intelligent group is more risk taker than the high and low intelligent group, but no significant difference exist between risk taking behaviour of average and low intelligent group.

2.2 RISK TAKING BEHAVIOUR AND CREATIVITY

Merrifield (1961) reported a significant relation between associational fluency and risk taking.

Merrifield et al. (1961) also reported a significant relationship between associational fluency factor and personality inventory measures of risk taking and tolerance of ambiguity.

Torrance (1962) Getzels and Jackson (1962) and Barron (1963) observed that the creative person is willing to take calculated risk.

Rogers (1962) while referring to the second inter conditions described that a creative person is willing to take risk, being open to experience in all aspects of his organism.

Getzels and Jackson (1962) have argued that creative adolescents are willing to free themselves from customary mode of thought in order to pursue a new direction, i.e. to risk the uncertainty of the unknown.
McClelland (1963) pointed out that successful scientists like successful salesman or business entrepreneurs, have a higher need for achievement. This tendency helps them to take moderate risks.

Taylor (1963) referred to risk taking and curiosity while defining characteristics of creative functioning.

Barron (1963) attributes risk taking both to the creative person and to creative act.

Mackinnon (1962) and Barron (1965) confirmed in their study on the personality traits of creative mathematicians and creative writers that creative mathematicians are courageous.

McClelland (1963) observed that willingness to take risk was one of the critical attributes of high creative subjects.

Taylor and Holland (1964), while describing the personality characteristics of creative persons, mentioned adventurousness, related both to courage and risk taking tendency, as one of the characteristics.

Anderson and Cropley (1966) found that high creative thinkers were significantly more willing to take intellectual risk.

Anderson and Cropley (1966) studied relationship between creativity and risk taking in a Canadian junior high school. The two samples consisting of most creative 10% and the least creative 10% of the entire group of 320 students were compared on a risk taking test, and the results indicated that the highly creative thinkers were significantly more willing to take intellectual risk. These findings, according to the researchers, suggest that there are cognitive differences between creative and convergent thinkers, and that these differences are connected
with the fact that the highly creative thinkers are prepared to think boldly.

Pankove (1967): he studied individual difference in risk taking in a sample of 162 middle and risks taking were analyzed to determine certain selected relationships. The author concluded that creativity bears a more powerful relationship to risk taking than does intelligence.

Kurtzman (1967) compared three groups of adolescents with different levels of creativity to determine if they differed with respect to personality characteristics. The results indicated that creative students tend to be more adventurous.

Pankove (1967) conducted a study of 84 boys and 78 girls of fifth grade to determine whether a relationship existed between creativity and risk taking. It was hypothesized that: (i) there is a positive relationship between creativity and risk taking and that (ii) any motivational disturbance will attenuate the relationship between creativity and risk taking in children. Creativity was measured by two tests: alternate uses (verbal) and pattern meanings (visual). Risk taking was measured by three tests: draw a circle (analogous to ring toss), clues (verbal) and shuffle board (motor skill). The major findings of the study were as follows: (i) there was a positive relationship between creativity and risk taking aiming boys but it was not significant in respect of girls. (ii) Creativity and intelligence exerted a combined effect on risk taking. Creativity, however, exerted a somewhat greater influence.

Pankove and Kogan (1968) also found a positive correlation between risk taking and creativity.
Torrance (1968) described 84 personality characteristics of a creative person. These included adventurous, attempts difficult jobs and willing to take risk. Raina has also stated that a creative person is ready to take risks. He is not at all worried about opposition and criticism, even persecution (Agarwal and Kumari, 1982).

Jose (1970) investigated the relationship of convergent and divergent thinking with taking risk and anxiety but found positive relationship only between risk taking and convergent thinking.

Taft and Gilchrist (1970) refer to productivity and creative attitude in their investigation and report that students scoring high on both of these aspects, apart from attributing several other traits, see themselves as unconventional and willing to take risks.

Strum (1971) investigated the relationship of creativity with academic risk-taking among 291 fifth graders of eleven years of age. Creativity was explored by examining the factors of ideational fluency, spontaneous flexibility, originality and elaboration. Risk taking was studied in a classroom testing situation. The material included two standardised tests, the T.T.C.T, figural Form A and the SRA tests of General Ability (TOGA). The wide range vocabulary test by Atwell and Wells was adopted to yield an estimate of academic risk taking. Analysis of variance was conducted in order to study the relationship of creativity and academic risk-taking in boys and girls, and in total sample. It was fond that there was no significant relationship between creative thinking ability and academic risk
taking in either of three samples. The results were similar for each of the creativity factor studied.

Gopal (1974) conducted a study of certain differentiating personality variables of creative and non creative science and engineering students. He found that creative students in both the samples were more venturesome and experimenting.

Patel (1976) studied personality syndromes of people who were high on each of the five creativity dimensions. Using Torrance Tests of Creative Thinking and a Biographical Inventory Form along with the 16 P.F.test, he found that those with a high profile on all creativity variables were venturesome, placid, self confident and emotionally stable, while those low on all creative variables were shy.

Cacha (1976) reported a multiple correlation of 0.38 between creativity and some factors, relaxed vs. tense and phlegernatic vs. excitable.

Glover and Sautter (1977) studied relation of four components of creativity to risk-taking preferences. The T.T.C.T. and the Kogan and Wallach’s choice Dilemmas Questionnaire were administered on the total population of 66 graduate students at a predominantly Black University. Risk Taking scores were used to assign students to groups with preference for high or low risk. The results revealed that high risk takers had significantly higher scores on flexibility and originality, while the low risk takers had significantly higher elaboration scores. No significant differences were observed between the two groups on fluency.
In a sample of 410 male students of classes 9th and 10th, Bhattacharya (1978) examined the interaction between personality and creativity. The findings of the study revealed that the high creative secondary and higher secondary students were more warm-hearted, more outgoing, more intelligent, less excitable and more adventurous than their low creative counterparts.

Jhag (1979) studied the personality correlates of creative children studying science subjects. The investigation was designed on a sample of 700 higher secondary school students of fifteen plus, drawn from the Bhopal division of Madhya Pradesh. Creative students were found to be more venturesome, apart from possessing some other qualities. Further, the study was elaborated that creative boys were found more adventurous while creative girls were shy and timid.

Guilford (1980) mentions some specific motives which, he thinks, are related to creativity. Such motives are an unusual strong curiosity, a need for adventure, willingness to take risks, tolerance for ambiguity, strong need for autonomy and self-direction, need for recognition from others for his accomplishments, high level of self-sufficiency and assertion.

Ritchie (1981) investigated the relationship between I.Q, creativity and risk taking attitudes of young children. The data were collected using teacher judgement (Renzulli-Hartman Scale of Creativity), subjects self assessment of risk taking (PACT), and the Slosson Intelligence Test. The subjects were 48 boys and girls in kindergarten through third grade in their schools in Piedment North Carolina. The schools were located in three different school systems- in rural, small town and urban.
settings. The 0.05 level of significance was required. Results of analysis of data showed a +ve relationship of teachers’ rating of creativity to I.Q. There was no relationship between subject’s self assessment of risk-taking and teachers’ rating of creativity. Teachers were shown to be biased in favour of females in the selection process. The researcher concluded that subjects ‘attitude towards risk-taking was a better means of measuring creative traits of young children than teachers’ judgement unless teachers value creativity and are trained to recognize its traits.

Kishore (1981) determined relationship between creativity and personality structure of students studying in class vi to x. he found that divergent traits of personality including venturesome, were consistently associated with all the creativity measures during classes vi to viii.

Agarwal and Kumari (1982) undertook a correlational study of risk taking and creativity with special reference to sex differences. A sample of 100 boys and 100 girls (graduate of Agra University) was tested for purpose; Mehdi’s verbal Test of Creative Thinking and Risk taking Inventory by Saroz Agarwal were used to collect data. The researchers reported positive relationship between creativity and total risk taking and different categories of risk taking. They also found highly significant sex differences in risk taking among high creative boys and girls, the differences favoring the boys.

Kumar (1983) studied creativity in relation to cognitive style, risk taking and personality. 425 students studying in B.Sc. first year in different colleges of Moradabad district were taken for the purpose. the psychometric instruments administered to participants included (i) the Torrance Tests of Creative Thinking
(both verbal and non verbal), (ii) the standard progressive matrices, (iii) Mandsley Personality Inventory, (iv) Choice Dilemma Questionnaire, and (v) Embedded Figure Test. It was found that there was no significant difference in risk-taking between high and low creative individuals.

Thandani (1983) investigated creativity in relation to risk-taking attitude in 126 students of six grade studying in the secondary and higher secondary schools of 13 districts of Rajasthan. The sample was selected using multistratified random sampling method. The data were collected with the help of following tools: - I. Creativity Test (Verbal and Non verbal) by Baquer Mehdi, and II. Risk taking Attitude Test by Raizeda. The results of this study showed that there was no significant relationship of fluency, flexibility and originality of verbal measures and elaboration of non verbal measures of creativity with risk taking attitude.

Tripathi (1983) designed a study to determine the personality traits of creativity among 354 B.Ed teacher-trainees selected from five colleges of Pratapgarh and Sultanpur districts of U.P. The tools used for collecting data included a Hindi version of the 16PF Questionnaire and Fluency-Originality Composite Test of Creativity, both prepared and standardized by the investigator himself, and the Socio Economic Status scale (urban) prepared by Jalota, Pandey, Kapoor and Singh. On the basis of analysis of data, it was concluded that high creatives were more venturesome, imaginative and experimental than their low creative counterparts.
Pandey (1988) studied the motivational determinants of creativity. The role of achievement motivation and risk taking in creativity was examined in a sample of 400 school children. The criterion variable was measured by Wallach-Kogan Battery of Creativity Instruments as adapted by Sharma (1976). Predicting variables were measured by Bhatia Achievement Motivation Test and Kogan-Wallach Choice-Dilemma questionnaire (Risk Taking).

Piyavadee (1988) studied some psycho-social correlates of creative thinking among higher secondary schools of Bangkok. The investigator constructed and standardized a creative thinking ability test over a sample of 543 students of classes X and XI. Several other tools were used for collecting data related to independent variables and the 2x2 factorial design was adopted to study their effect on the dependent variable. As a result of the study, among other characteristics, courage in convictions, curiosity, and willingness to take risks were reported as traits of creative children.

Tuli (1988) examined the personality profiles of high and low creative persons in mathematics. The school population of intermediate science classes of Almora city constituted the sample. Only 45 girls and 45 boys took part in the investigation effectively. The research tools administered for collection of assessment data were creative ability in mathematics test (CAMT) and the form A of the 16PF.Test by Cattell. The t-test was used to determine the significant difference in the personality factors of high and low creative. It was found that in addition to
be characterized by certain other personality factors, high creative in mathematics are venturesome and socially bold.

Pathak (1989) explored some personality factors and value orientations of creative individuals. The sample consisted of 400 college freshmen drawn from three colleges of Barh sub division in the district of Patna. The tools used for the investigation consisted of: I. Wallach Kogan's Battery of Creativity Instruments, II. Cattell's 16 PF (Form A) as adapted by Kapoor (1970), III. Adjustment Inventory by Sinha and Singh, and IV. Allport Vernon, Lindsey study of values, as adopted by Verma 1970. The investigator found that the main effect of high and low creative groups in terms of their shy-venturesome scores and the interaction effect between intelligence and creativity were statistically insignificant. The mean scores of high creative subjects in terms of shy-venturesome scores were high in comparison to mean scores of low creative subjects. The product moment correlation between shy-venturesome dimension of personality scores and creativity index was positive, but insignificant.

Sharma (1990) has found that students belonging to low risk-taking behaviour are more creative as compared to the students belonging to high risk taking behaviour.

Krishnegowda (1991) and Singh (1992) found a significant relationship between creativity and risk taking.

Pandey and Singh (1992) found no relationship between risk taking and any of the sub dimensions of creativity.

Robsman (1992) planned an investigation on at-risk students in Kindergarten through grade five. the purpose of this
study was two-fold, first to examine the creative abilities, as defined by teacher and by the Torrance Tests of Creative Thinking, Figural Form B, of at-risk students; second to query teacher understanding of creative abilities as defined by Torrance and the relationship between teacher knowledge and student performance on the Torrance Test. Results were: Teachers listed curiosity most often for their most creative students and lack of risk taking most often for their least creative students; they rated flexibility and imagination both.

Krishnan (1993) is of the view that venturesomeness is so characteristic of the personality of creative individuals that it itself is a category into which a large no. of definitions of creativity may be classified.

Singh (1995) found that risk taking is not a strong determinant of creativity in males as well as females. Out of the five measures of creativity it has been found significantly related to one in males and two in females; risk taking is a positive determinant of flexibility in males, however, a negative determinant of flexibility and originality in females.

Kaur (2002) studied creativity in relation to risk taking behaviour of school students. On the basis of analysis of data comprising of 200 boys and girls from rural schools, it was found that significant relationship exists between fluency, flexibility and total creativity and risk taking behaviour. However, not significant relationship emerged between ‘originality’ dimensions of creativity and risk taking behaviour. The investigation further elaborated that significant differences exist in the creative potential of groups of students showing high or low levels of risk
taking behaviour. The study clearly indicates that creativity depends upon the level of risk taking behaviour.

2.3 RISK TAKING BEHAVIOUR AND SOCIO-ECONOMIC STATUS

Indirect evidences of the impact of differences in economic status on risk-taking are also provided by the public opinion with regard to game of chance (Back and Gergen, 1963). The survey revealed that approximately 60 percent of the population admitted to have participated in different varieties of games of chance during the proceeding year. Comparison of gamblers and non-gamblers in terms of their educational status showed a clear relationship between higher status and participation in gambling activities. From this it can be inferred that both social and educational status are conducive to participation in gambling activities but may be with some amount of cautiousness. It seems quite plausible to assume that these financially affluent can afford to greater risks than lower status individuals.

Sharma (1990) holds that interaction between risk taking and socio-economic was found to be significant which means that Risk taking Behaviour of the students is dependent on socio economic status and vice versa.

Rosan, Tsai and Downs (2003) their study examined variations in risk attitude across major socio demographic groups. A survey elicited utility measures for health status under risk insensitive and risk sensitive conditions. A multivariable linear regression model was used to examine the relationship between risk attitude and socio demographic factors. Of the 62 study objects, the mean age was 47.6 years, 47% were female.
Overall 37% of respondents were decidedly risk averse, 37% moderately risk averse, 15% moderately risk seeking and 11% decidedly risk seeking. Women also tended to be more risk averse. This study found significant differences in risk attitude across race and educational status, with a smaller difference across gender.

Langille, Curtis, Hughes and Murphy (2004) conducted a study to determine the association of socio-economic factors with risk behaviours among adolescents. A cross sectional survey was carried out on students in four high schools in northern Nova Scotia, Canada. It was interpreted that lower socio-economic status is associated with adolescent risk behaviours.

Kaur (2010) conducted a study on risk taking behaviour among secondary school students in relation to their socio-economic status, academic achievement and locale and concluded that there is no significant relationship exists between risk taking behaviour and socio-economic-status of secondary school students.

2.4 RISK TAKING BEHAVIOUR AND GENDER

Flynn (1975) conducted a study to determine personality characteristics that may be related to school readiness, particularly with reference to migrant pre school children, the following characteristics were examined: 1.delay of gratification, 2. Relationship with achievement model, 3.Dependency, 4.Motor inhibition, 5.self-control, 6.Self-concept and 7. Risk-taking. The 195 children who participated in the study ranged in age from 3.5 to 4.5 years, and were randomly selected from compensatory education programs for pre school children of migrant workers in
Florida. In order to insure that the characteristics examined were of an effective nature, a cognitive ability measure was used as a covariate to remove achievement variance due to the child's cognitive ability. Tests used to determine the characteristics in question are explained in detail. Results indicated: 1. self concept accounted for a significant percentage of achievement variance for both boys and girls; 2. self concept, delay of gratification and motor inhibition accounted for a significant percentage of variance for boys but not for girls; 3. risk taking was related to school readiness for girls but not for boys.

Dorros and Kogan (1976) their research titled 'Sex differences in risk taking and its attribution' confirmed findings regarding the absence of overall sex differences in risk taking preferences on a revised Kogan-Wallach Choice Dilemmas Questionnaire (CDQ). An unanticipated finding was the higher risk level elicited in items with female rather than male central characters.

Morris and Lynn (1978) conducted a study to determine the relationship between age and risk taking for community college students, 74 male and 72 female students, ranging from 18-79 years of age, took a vocabulary test in which six "nonsense" items were interspersed among 54 legitimate items (following Slakter's procedure). Test instructions explained a penalty would be levied from incorrect responses and that no change in score would occur for omitted items. It was hypothesized that any response on "nonsense" items would be an indicator of risk taking behaviour. Results of co relational indicated that the proportion of linear risk taking variance explained by age and sex was low, but that a moderate
proportion of nonlinear variance was associated with age differentiation. By comparing data with those reported in a previous study of New York state students, an age function for risk taking on objective examinations across a large life-span proportion was constructed. Comparison findings showed that high school students had higher risk scores than mature adults, who, in turn, had higher risk scores relative to young and middle-aged adults, suggesting the possibility of a nonlinear age function for risk taking from the second to the seventh decade of life.

Agarwal (1982) studied creativity as a function of self-esteem, risk-taking and home background. The sample comprised of 200 males and 200 female students of undergraduate classes of Agra University. The tools used were creativity test, risk-taking questionnaire, self-rating questionnaire, Situational Dilemma Questionnaire, Personality Inventory on self-esteem, and a tool for measuring home background. It was concluded on the basis of the findings that risk-taking, more or less, is a positive and significant factor in fostering creativity of both the sexes.

Agarwal and Kumari (1982) undertook a correlational study of risk taking and creativity with special reference to sex differences and found highly significant sex differences in risk taking among high creative boys and girls, the differences favoring the boys.

Ginsberg and Miller (1982) examined 480 three to eleven year old children at four different risk taking locations at the San Antonio Zoo. While girls were just as likely as boys to enter the
zoo, at all four of the risk taking situations, significantly more boys than girls engaged in risk taking behaviour.

Fagot (1985) conducted a research to study responses of parents and other adults to children in risky situations, series of photographs of children in risk taking situations were rated by subjects. Two studies indicated that male and female reactions to meanings of child behaviorism were similar while sex differences in tendencies toward intervention did occur.

Sharma (1990) reported that the F-ratios for interaction between risk taking behaviour and sex was found to be significant on Tough-minded v/s tender mined, Trusting v/s Suspicious, and Placid v/s Apprehensive which clearly shows that Risk-Taking Behaviour of the students and sex are dependent on each other in case of above mentioned personality factors. (ii) The F-ratio for triple interaction Risk-taking behaviour, socio-economic status and sex was found to be significant. This clearly shows that risk taking behaviour, socio-economic status and sex are inter-dependent on one another simultaneously to explain personality structure.

Sunder (1995) in his study “relationship between risk taking and information seeking in decision making” found that there were no significant difference between the male and female on risk taking scores. There was however a significant difference exists between the male and female population on the information seeking scale.

Huth (1996) investigated the relationship between personality characteristics and sensation seeking as well as sex differences in risk taking behaviours such as substance abuse and unsafe sex. The sample consisted of 47 undergraduate
students (22 men 25 women) at a public, Midwestern university. The sensation seeking scale (SSS)-Form V and a personality questionnaire that yields the big five personality traits were administered to all participants. Results indicated extroversion predicted sensation seeking in females only, whereas low agreeableness and low conscientiousness predicted sensation seeking in the entire sample. Furthermore, men appeared to be significantly more willing to find interested in taking risks than women.

Douglas et al. (1998) identified the educational, social and health related risk taking behaviour (RTB) for children and adolescents and investigated the risk taking behaviour presence of gender and age related patterns. They revealed that health related risk taking behaviour is the most easily identified; educational and social RTB was greater for males while health RTB was greater for females; and involvement with RTB increased with age.

Kaur (1999) investigated into risk taking behaviour of high school students in relation to curiosity and she found that there exist a low but positive relationship between risk taking behaviour and curiosity and there is no difference in the risk taking or curiosity among boys and girls.

Boyd, Gullone, Moore and Moss (2000) examined psychometric properties of Adolescent Risk-Taking Questionnaire, using 11 to 18 years old and found that the four-factor risk structure was substantiated via confirmatory factor analysis. One week test-retest and internal consistency indices were sound. Older adolescents and boys perceived less risk
reported more risky behaviours than younger adolescents and girls.

Saran (2003) conducted a study to compare the risk taking behaviour of rural and urban students and concluded that rural there is no significant difference in risk taking behaviour of boys and girls in the total sample.

Kaur (2004) conducted a study of risk taking behaviour of adolescents in relation to locus of control and found that there is significant difference in risk taking behaviour of female and male adolescents; there is significant difference in risk taking behaviour of rural male and rural female adolescents; there is insignificant difference in risk taking behaviour of urban female and urban male adolescents.

Morrongiello (2004) conducted a study on the theme “Do children’s intentions to risk take relate to actual risk taking?” and found that at all ages, for both boys and girls, intentions to risk take was highly positively correlated with actual risk taking.

Aggarwal (2005) has reported that females are far behind males in different risk taking behaviours such as tobacco chewing, smoking and drinking.

Kumari (2006) investigated risk taking behaviour among adolescents in relation to their academic achievement. The data consisted of school going boys and girls yielded that in totality there exists no significant difference in risk taking behaviour of female and male adolescents. The analysis further reported that there is no significant difference in risk taking behaviour of rural male and rural female adolescents and also there is no
significant difference in risk taking behaviour of urban male and urban female adolescents.

Kaur (2007) conducted a study impact of home environment on risk taking behaviour of lower secondary school students. She reported that no significant difference has been found in the variable of risk taking behaviour of boys and girls of whole sample.

Kaur (2008) designed a study to analyse the risk taking behaviour of college students in relation to emotional maturity and she found that there is no significant difference in risk taking behaviour of male and female college students.

Meenakshi (2009) observed the risk taking behaviour and parental encouragement of Science and Humanities groups students in relation to mathematics achievement and found that in risk taking behaviour, no significant gender difference of senior secondary school students is found.

Schafer (2010) analyzed gender differences in risk attitudes and behaviour therapy in case of illness and stress situations. The evaluation of the behavioural mode taking into account it was found that men show more willingness to take the risk in dealing with their therapy and help than women.

2.5 RISK TAKING BEHAVIOUR AND LOCALE

Jhag (1979) studied the personality correlates of creative children studying science subject and found that the semi-urban boys were reported to be more venturesome than the urban boys.
Saran (2003) conducted a study to compare the risk taking behaviour of rural and urban students and found that rural students are more risk takers than urban students.

Kaur (2004) reported that (i) there is insignificant difference in risk taking behaviour of rural and urban adolescents. (ii) there is significant difference in risk taking behaviour of rural male and urban male adolescents. (iii) there is significant difference in risk taking behaviour of rural female and urban female adolescents.

Kumari (2006) concluded that there is no significant difference in risk taking behaviour of rural and urban adolescents; there is no significant difference in risk taking behaviour of rural male and urban male adolescents and also there is no significant difference in risk taking behaviour of rural female and urban female adolescents.

Meenakshi (2009) reported that there is no significant difference in risk taking behaviour of senior secondary school boys belonging to rural and urban areas and also there is no significant difference in risk taking behaviour of senior secondary school girls belonging to rural and urban areas.

Kaur (2010) conducted a study on risk taking behaviour among secondary school students in relation to their socio-economic status, academic achievement and locale and concluded that difference between means of urban and rural school students shows that rural students are more risk takers in Hills dimension of risk taking as compared to urban students and urban students are more risk takers as far as Fire dimension is measured.
From the review it is clear that not sufficient work has been done in the field of risk taking behaviour especially with variables like intelligence, creativity, socio economic status, sex and locale. More specifically, the risk taking behaviour of secondary school students in relation to certain cognitive and demographic variables, taken together, has not been explored. Hence the present study is an endeavor to look into risk taking behaviour among intelligent and creative secondary school students in terms of gender, locale and socio-economic status.

2.6 OVERVIEW

From the foregoing brief account of some of the pertinent studies dealing with risk taking behaviour and its antecedents following observations may be made.

Risk taking and Intelligence are positively and significantly related with each other (Jose (1970); though no significant correlation between risk taking behaviour and Intelligence has been reported in another study (Saran (2003); Risk taking is considered to be one of the most important characteristics of creative persons (Taylor, 1963; Taylor and Holland, 1964; Anderson and Cropley, 1966; Pankove and Kogan, 1968; Patel, 1976; Bhattacharya, 1978; Agarwal, 1982; Tripathi, 1983; Piyavadee, 1988; Pathak, 1989 Krishnan, 1993. Krishnegowda (1991) and Singh (1992) found a significant relationship between creativity and risk taking. Pandey and Singh (1992) found no relationship between risk taking and any of the sub dimensions of creativity. Kaur (2002) found significant correlation of fluency, flexibility dimensions of creative behaviour with risk taking behaviour. Nisha Gupta (1976), Singh (1978) and Reddy (1991)
reported that creative males were adventurous while creative females were shy, timid, restrained and threat sensitive.

Creativity has been found to be better related with risk taking behaviour than intelligence (Pankove (1966, 1967), Pankove and Kogan (1968) found that creativity bears a more powerful relationship to risk taking than does intelligence).

Gender differences in risk taking behaviour is also an issue of concern for researchers. The male group of adolescents and secondary school students show a more explicit choice in risk taking behavior (Pankove, 1967; Jhag, 1979; Agarwal and Kumari, 1982; Ginsberg and Miller, 1982; Huth, 1996; Agarwal 2005; Schafer et al. 2010). However, few studies talk of girls' superiority over men (Dorros and Kogan (1976). No significant gender differences have also been reported (Kaur, 1999; Kumari, 2006; Kaur, 2007; Kaur, 2008).

There are some studies that focus on locational differences in risk taking behavior (Jhag, 1979; Saran, 2003; Kaur, 2004; Kumari, 2006; Meenakshi, 2009; Kaur, 2010). Also socio-economic status has been a focus of studies to explain risk taking behaviour (Rosan, Tsai and Downs, 2003; Saran, 2003; Langille, Curtis, Hughes and Murphy 2004).

Risk taking behaviour has also been studied in different kinds of life threatening/antisocial activities in which it has been reported that alcohol and drug abuse often leads to serious health risks such as death, cancers, brain damage, liver damage and health problems (Australian Bureau of Statistics, 2008). Men appeared to be significantly more willing to find interested in risk taking activities such as substance abuse and unsafe sex (Huth, 1996).
2.7 HYPOTHESES

1. There will be no significant mean difference between high and low intelligent secondary school students in their risk taking behaviour.

2. There will be no significant mean difference between high and low creative secondary school students in their risk taking behaviour.

3. There will be no significant gender difference in risk taking behaviour of secondary school students.

4. There will be no significant mean difference between rural and urban secondary school students in their risk taking behaviour.

5. There will be no significant mean difference between high and low socio-economic status secondary school students in their risk taking behaviour.

6. There will be no significant interaction effect of gender with intelligence on risk taking behaviour of secondary school students.

7. There will be no significant interaction effect of locale with intelligence on risk taking behaviour of secondary school students.

8. There will be no significant interaction effect of socio-economic status with intelligence on risk taking behaviour of secondary school students.

9. There will be no significant interaction effect of gender with creativity on risk taking behaviour of secondary school students.
10. There will be no significant interaction effect of locale with creativity on risk taking behaviour of secondary school students.

11. There will be no significant interaction effect of socio-economic status with creativity on risk taking behaviour of secondary school students.

12. There will be no significant interaction effect of gender, locale and socio-economic status with intelligence on risk taking behaviour of secondary school students.

13. There will be no significant interaction effect of gender, locale and socio-economic status with creativity on risk taking behaviour of secondary school students.