Chapter - 2

Review of the Related Studies

2.1 Studies related to Sociometric Groups

2.2 Studies related to Educational Aspiration

2.3 Studies related to General Mental Alertness

2.4 Studies related to Impulsiveness
II- REVIEW OF THE RELATED STUDIES

GENERAL REVIEW

Research takes advantage of the knowledge which has accumulated in the past as a result of constant human endeavor. It can never be undertaken in isolation of the work that has already been done on the problems which are directly related to a study proposed by an investigator.

A careful review of the research journals, books, dissertation, theses and other sources of information on the problem to be investigated is one of the important steps in the planning of any research study.

Scott & Worthimer have rightly observed that literature review may serve to avoid unnecessary work on worn out problems and may help to make progress towards the solution of new ones. The purpose of the review of previous literature is to collect and synthesize prior studies related to the present study. This, in turn, helps the investigator in building a better perspective for future research.

Thus we can say that, “Every piece of ongoing research needs to be connected with the work already done to attain an overall relevance and purpose”.

Review of literature tells the reader about aspects that have been established or concluded by other authors, and also gives a chance to the reader to appreciate the evidence that has already been collected by previous research.

A large part of review of literature actually needs to be done even before the research project is formalized. This is essential to make that you are not repeating the work that some has already done earlier. A good researcher usually goes through a lot more literature than is actually incorporated in the paper. This is because different literature may have differing relevance for the current project.

“A literature review uses as its database reports of primary or original scholarship and does not report new primary scholarship itself” (Cooper, 1988)

A literature review may be purely descriptive, as in an annotated bibliography, or it may provide a critical assessment of the literature in a particular field stating where
the weakness and gaps are, contrasting the view of particular authors, or raising questions.

Therefore, the present investigator has thoroughly scanned the entire literature relevant to the present study under the following heads:

2.1 Studies related to sociometric groups
2.2 Studies related to educational aspiration
2.3 Studies related to general mental alertness
2.4. Studies related to impulsiveness

2.1 STUDIES RELATED TO SOCIOMETRIC GROUPS

Bonney (1943) reported significant differences between fourth grade pupils with high and low sociometric status on a number of behaviour characteristics. Pupils with high sociometric status were found to be significantly superior on both personality and social behaviour descriptions. They were characterized most frequently by their peers as being tidy, good looking, happy, friendly and cheerful. In their social relation they were described as being enthusiastic, daring, active in recitations, at ease with adults, welcomed by other class members and exhibiting Leaderships in groups. Thus, their classmates as possessing socially admired qualities, which contribute to effective social interaction, perceived and the pupils who were highly chosen on the sociometric test.

Khulen & Lee (1943) conducted a study, similar to Bonney's at the 6th, 9th and 12th grade level and reported similar results. Although there was some change in characteristics from one grade level to another, those with high sociometric status were characterized more frequently as being, good looking, and popular, happy, friendly, cheerful and enthusiastic. In addition they were noted to enjoy jokes and to initiate games and other activities more frequently than pupils with low sociometric status.

Johsons & Crike (1950) have conducted that isolates and rejectees have low intelligence than populars.
Laughlin (1954) correlated sociometric results using 21 classrooms at the 6th and 7th grade levels, with the behavior descriptions of peers and found the same behavior characteristics related to high sociometric status.

Galeder & Coder (1957) have reported that socially accepted students are high in their intelligence. In the primary classes on Binnet Intelligence Scale 30 students were of I.Q. 150. Eighty percent (80%) students obtained high scores on the sociometric status and 20% students were of below average.

Gronlund and Anderson (1957) compared the characteristics of socially rejected and socially neglected pupils in a junior high school population. The socially accepted people were those who received the largest number of acceptance choices on the sociometric test; the socially rejected were those -who received the largest number of rejection choices; and the socially neglected were those who received the smallest number of both acceptance and rejection choices. There were 20 pupils in each category out of a total population of 158. When these three groups were compared on the basis of responses on a “Guess Who” scale. Important differences were noted. The socially accepted pupils were characterized as possessing good looks, tidiness, friendliness, likableness, intelligence, enthusiasm, cheerfulness, initiative and sense of humor. In contrast, the socially rejected pupils were not only overlooked on these positive characteristics but they were also frequently described as possessing the opposite attributes. Thus, their peers as being not good-looking, untidy, not likable, restless and talkative characterized them. The socially neglected pupils tended to be over looked on the “Guess who” from, receiving relatively few mentions on either positive or negative characteristics. The few mentions they did receive indicated that they were quiet and not talkative.

Reese (1962) conducted a study on 5th grade boys and girls using a rate sociometric scale from 1, meaning best friend, to 5 for “dislike”. The findings revealed that girls were more favorable toward those boys most accepted by other boys. Other girls do not relate girls’ acceptance by boys to girls’ acceptance.

Horowitz (1966) conducted a sociometric study on personality characteristics of 1437 male and 1505 female students in 8 high schools throughout the United States. 4 scores were obtained for each student: attractiveness to members of the same and of
the opposite sex and rejection by members of the same and of the opposite sex. Correlations among these scores and factor analysis showed that popularity scores were independent of rejection scores. The implications of the results for factors analytic model construct were discussed.

Orlemans (1966) discussed the level of aspiration for the group in positive and negative sociometric groups, the influence of group atmosphere upon goal-setting for the group. By means of a sociometric test 16 small groups were selected: 8 of them with positive relationships (high groups) and 8 of them with negative relationships (low groups). These groups were asked to carry out some neutral estimation tasks by means of group discussions and were asked to state a level of aspiration for the group. The main result was the difference between high and low groups in handling their socio emotional problems. Analysis of the interaction process (Bales) showed that the low groups were hampered by their emotional problems and defended themselves against expressions of hostility and tension. In these low groups a discrepancy between overt and covert behaviour was repeatedly observed, the former being more positive than in the high groups. The level of aspiration of the low groups was 1 of the variables which was used in a defensive way.

Sharma (1970) found that populars were on the average of higher intelligence and adjustment scores than isolates and scored high in scholastic achievement also. It was also found that popular were more aggressive, assertive, vigorous, confident and friendly than the unaccepted students.

Sharma (1974) had taken up “The correlates of sociometric status in high school classes. The researcher used Vyaktika parakha prashnavalli intrest inventory, and a sociometric questionnaire. The significant results were that intelligence played an important role in making the students accepted in the group. The least liked skills and activities for both the groups were indoor games, religious activities and mechanical work.

Pandey (1977) comprised the adjustment problems of 100 bright and hundred average boys studying in intermediate colleges of Moradabad, uttar Pradesh (India). The groupings were made by administering the verbal and non-verbal intelligence
tests. Results indicated that the intellectually superior boys had more problems in the area of social adjustment than the average boys.

**Morgan (1978)** conducted a study on personality characteristics of elementary school children in regular classrooms who were rejected by their peers, identified through sociometric assessment and was observed and rated on several behavioural dimensions. These data were factor analysed, yielding 5 categories of maladjusted behaviour observed. Results showed significant differences between rejected and accepted children. The behavioural manifestation were grouped into 5 categories and described in illustrative cases representing types of rejected children: Impulsive Aggression, Immaturity / Depression, Withdrawn / Distractible, Hostile / Aggressive and Psychomotor difficulties.

**Goldman et.al. (1980)** examined positive and negative sociometric status with reference to observed classroom behaviour and performance on 2 laboratory measures of social skills: decoding emotions from facial expression and referential communication. Based on data from 38 preschoolers, results indicate different patterns of correlations for liked (positive nomination) and disliked (negative nomination) scores. High liked students spent more time in positive interaction with peers and less time in solitary play or alone with an adult. High disliked students scored less well on both laboratory measures. Using median splits on the liked and disliked dimensions, results indicate that children who were rated by their peers as low-liked/High disliked were the most deviant in classroom behaviours and task scores. The importance of obtaining both positive and negative nominations in investigations of social competence is stressed.

**Madhosh (1982)** studied the personality correlates of sociometric status in different interpersonal situations. The tools used were Cattels 16p.f. inventory, sociometric test. The most important findings of the studies were that the populars of Jammu & Kashmir region were intelligent, outgoing, warm hearted, socially bold, and relaxed.

**Maheady & Santo (1984)** conducted a study on the highest and lowest psychometrically rated students (aged 8 years to 11 years) in each of 3-elementary, self-contained special education programmes, they were observed during free play time for 5 min each day over a 4 week period. The quantity (frequency), quality
(positive or negative) and reciprocal nature of their social interactions with classroom peers were recorded. For the most part, student's social interactions were both positive -and reciprocal in nature. In addition no discernible differences were noted between the target-initiated social behaviour of high and low status students. However, specific differences were found in peer social behaviour that was directed towards the target students. High status students were the recipients of (a) higher rates of peer initiations, (b) greater percentages of positive social initiations, and (c) fewer negative social contactor. Low-status students, however, encountered fewer peer-initiated contacts and of these, a greater percentage was negative in nature.

**Malik (1984)** conducted a study on 324 girls of grades IX & X higher secondary school personality differentials of adolescent girls across sociometric status. She observed that on the factor of intelligence the populars were superior to the rest of sociometric groups. Neglectees were found to be generally low on each variable as compared to the other sociometric groups.

**Kurdek & Lillie (1985)** examined classmate likability, compromising skill, temperament and after school patterns of social interaction for 39 3rd graders, 26 4th graders, 22 5th graders, and 23 7th graders who were identified by a binomial probability model as popular, rejected, neglected & average in the classroom setting. Students were asked to nominate their best friend and children they did not like at all: they were also administered peer ratings of likability and a dimensions-of-temperament survey. Students also solved a social dilemma in a story real aloud to them, which measured their compromising skill. Significant effects were obtained for each type of score. Compared to the other social status groups, popular students were the best liked, and rejected students were the least liked; neglected and average students fell between these 2 extremes. Popular students had higher compromising scores than either rejected or average students and neglected students had higher scores than rejected students. Compared to average students, rejected students had higher attention and rhythmicity temperament scores. Popular and average students had more neighborhood friends than either rejected or average students, or neglected students had younger neighborhood friends than did average students.

**Asher & Wheeler (1985)** administered sociometric and loneliness questionnaires to 200 3rd – 6th grade children to assess feelings of loneliness in 2 subgroups of
unpopular students — those who were psychometrically rejected v/s. those who were psychometrically neglected. Data on popular, average, and controversial students were also collected, one-fifth of the students were from low SES families one-third were from middle SES (socio economic status) families and the rest were from upper middle or upper SES families. Results indicated that the rejected students were the loneliest group and that this group differed significantly from other status groups. Neglected students did not differ from their higher status peers. Overall, findings provide evidence of the utility of the distinction between neglected vs. rejected status and provide support for the conclusions that rejected children are more at risk than are other status groups.

Rani (1986) studied the personality patterns of different sociometric groups of adolescents. She used impulsiveness as one of the 12 personality factors in her study. Her results showed a significant difference among four sociometric groups on the factor of impulsiveness, and the difference found between the groups, were (populars & isolates, neglectees & isolates, rejectees & isolates) at 0.01 level of significance. The other groups i.e. populars and neglectees, populars and rejectees, neglectees and rejectees were not found significant even at 0.05 level of significance.

Carlson et.al. (1987) conducted a study on 358 2nd and 5th graders identified 26 socially accepted, 32 rejected and 28 neglected peers by indicating whether each of 19 descriptions of social behaviour was characteristic of each peer. Rejected students were perceived by-peer as being more aggressive, disruptive, irritable, domineering dishonest and selfish than accepted and/or neglected students. Neglected students, in contrast differed from accepted students only in being less likely to brag about physical powers. Low SES (socio economic status) of rejected students seemed to be related to the negative impact of their behaviour on peer, but low SES of neglected students did not have a negative impact. Females were perceived as behaviour more positively with peers; no interactions were found between sex and SES. Test-retest reliability of peer evaluation items was higher for 5th - than for 2nd grade students. It is suggested that structural peer instruments may be useful in evaluating-the social behaviour of some unpopular children.

Dubow (1988) studied the relation between aggression and peer status in 238 - 5th graders. Results indicate low-to-moderate correlations between peer nominated
aggression and global indices of social acceptance. Aggressive students largely comprised the rejected and average social-status groups but not the popular or neglected groups. According to both peers and teachers, aggressive/rejected students showed academic and social-skill deficits, whereas aggressive students of average peer status exhibited adequate adjustment similar to that of non-aggressive/average-status students. It is suggested that knowledge of an aggressive child’s peer status might be useful in enhancing the predictability of adult adjustment.

**Boivin & Begin (1989)** evaluated the relations among peer status, self- and other perceptions of social competence among 222 French-Canadian children (aged 9-11 years). Self-esteem, self-perception in different domains (academic, social acceptance, athletic, physical appearance, and behaviour/conduct) and teacher’s assessments were assessed along with peer status. A cluster analysis revealed that rejected students could be assigned to 1 of 2 groups with respect to self-perceptions, the 1st displaying high self-perceptions and the 2nd showing low self-perceptions. In contrast popular students showed generally positive self-perceptions. No difference was found between the self-perception scores of neglected and average students, whereas controversial students displayed lower self-esteem and perceived competence on the academic and behaviour/conduct dimensions.

**Madhosh (1989)** studied on personality correlates of sociometric status. The sample of the study comprised of 300 male subjects of classes IX & X belonging to three sub-cultural settings of Ladakh & Kashmir. The tools used were cattells 16p.f. The study found that the Kashmiri popular’s personality appeared to possess strong emotional stability, spontaneity and high mental ability. Populars were also affectionate, intelligent; self sufficient, aggressive and happy go lucky.

**French (1990)** identified 46 rejected 8-10 years old girls and 20 populars 8-10 years’ old girls using rating sociometric and peer and teacher behaviour rating measures (including the self-Control Rating Scale and the School Behaviour Checklist). Two large clusters emerged from the analysis of the rejected girls, with one of these being more deviant than the other. The more deviant group was characterized by withdrawal anxiety and low academic functioning. In this study aggression scores did not differentiate the 2 clusters. Thus, it does-not appear that the use of a combination of aggression and rejection criteria identifies the most deviant group of girls.
Frentz & others (1991) investigated social competence and achievement differences among 331 popular, controversial, neglected or rejected adolescents in Grades 6-10 using a sociometric classification procedure. Comparisons were made from teachers’ and self-report judgment of social skills, behaviour problems, and academic achievement. Measures included the behaviour Problem Checklist and the Self-Control Rating Scale. Significant differences and trends in the data indicated that popular students displayed more socially skilled behaviours and fewer behaviour problems than rejected students. No differences in teacher-rated social skills, problem behaviours, or academic achievement were found between popular, controversial and neglected groups.

Bryant (1992) examined conflict resolution (CFR) strategies (e.g., anger retaliation, calm discussion) in relation to the social status of 165 children in the 1st study (Grades 4-6) and 67 children in the 2nd study (Grades 4 and 6). Subjects were peer rated for sociometric status and for CFR style; subjects completed a 22-item questionnaire measuring perception of their pro-social persuasive skills in conflict and non-conflict situations. Results from the 1st study indicate that children who were socially preferred were identified by peers as more likely to use a calm approach to resolve conflicts and less likely to use either an anger retaliation approach or an avoidance approach. Rejected and controversial children were viewed as using the anger retaliation strategy more than did popular, neglected, and average children. Study 2nd provided initial support for the validity of children’s ratings of their peers’ salient use of particular forms of CFR strategies.

Bullock (1992) reviews studies concerning the implications for children who grow up without friends. It is concluded that a significant percentage of children are rejected or neglected during childhood. Rejected children show many more appropriate behaviours than other children do and are also more aggressive, argumentative, and likely to engage in disruptive peer interactions. Many adolescents who drop out of school, experience poor peer adjustment in their earlier years of school. A lack of friends also contributes to loneliness, low self-esteem, and inability to develop social skill. Teachers and parents are encouraged to communicate to give parents an understanding of their child’s development and progress. Teachers can discuss their
observations of the child and share what they are doing in the classroom that might also be reinforced at home.

Crick & Ladd (1993) conducted a study on 338 3rd and 5th graders who were completed a sociometric questionnaire. Three instruments were designed to assess their feelings of loneliness, social anxiety, social avoidance, and their attributions for social outcomes. Results show that children’s feelings and attributions varied as a function of peer status, gender and grade. For example compared with peers, rejected children reported higher levels of loneliness and were more likely to attribute relationship failures to external cause. Children’s feelings were also significantly related to their attributions about social events. Popular, average and controversial status children who were socially distressed exhibited a non-self-serving attributional style, whereas distressed rejected children exhibited a self-serving attributional pattern. Neglected children who were distressed exhibited elements of both of these attributional styles.

Pellegrini (1994) observed Chase and Rough Play (RP) in 22 popular, 19average 13 rejected white adolescent boys (mean age for all groups 13 years) while they were on the playground during recess. Sociometrically defined average and rejected students spent a significant portion of their time in Rough Play when compared with popular students. Rough play was related to aggression and perspective-taking status for rejected students and was related to dominance status for all students. Rejected and average students choose to engage in Rough Play with less dominant children.

Vandell & Hembree (1994) examined peer social status, friendships and adjustment for 326 3rd grade children. Although status and friendship were related, they were not redundant. Some rejected and neglected children had friends, and some popular and avenge children did not have friends. Both peer social status and friendship were found to contribute uniquely to children’s socio-emotional adjustment, academic competence and self-concept.

Czechlik and Rost (1995) investigated the relation between intelligence and 5 sociometric types: populars, rejected, neglected, controversial and average in a primary school population. They found that intelligence and popularity were positively correlated and intelligence and rejection were negatively correlated.
Duncan & Cohen (1995) examined the liking of peers in relation to sociometric status and sex of both the evaluators and the children evaluated. 447 children in Grades 1-6 were categorized as Popular, Rejected, Neglected, Controversial or Average, based on sociometric data, and ratings of peer liking for all classroom peers were analysed. Popular children received the most positive ratings while Rejected children received the lowest. Liking ratings given were influenced by sex and sociometric status of both the evaluator and the child evaluated. Generally, same-sex ratings were higher than cross-sex ratings, and popular children gave higher ratings than children of other categories. Boys rated Neglected girls higher than they rated Rejected girls, and girls rated Rejected boys higher than they rated Neglected boys. Controversial status boys generally received lower ratings from Rejected status boys and girls than they did from children in other status group.

Young & Bradley (1998) conducted a study on 243 grade 7 and 8 students identified by self-report measures as stable introverts, stable extroverts, unstable introverts, and unstable extroverts. Results confirm that unstable introverts regarded themselves as less happy and popular than other subject & they saw themselves as less academically self-efficacious than extroverts and emotionally stable, introverted adolescents. Introverts and unstable adolescents regarded themselves as less socially self-efficacious than extroverts or stable children. The results in general suggest that it is not simply introversion that determines negative social consequences, but that emotional stability or neuroticism must also be considered and that unstable introverts may be more likely than stable introverts to suffer from maladjustment. The findings may help psychologists, teachers, and counselors determine which socially withdrawn children benefit from intervention.

Eronen & Nurmi (2001) conducted a cross longitudinal study on 154 students to investigate peer relationships and social behaviours and whether social reaction styles and loneliness serve as antecedents and consequences of sociometric status among young adults, The results of the study revealed that social reaction styles, feelings of loneliness, and satisfaction with the group atmosphere prospectively predicted sociometric status. A high level of approach orientation predicted popularity. Sociometric status also predicted changes in individual’s reaction style and feelings of
loneliness. Finally high sociometric status was related to pro-social behaviours, whereas low sociometric status was associated with behavioural deficiencies.

**Hubbard (2001)** conducted a study to investigate sociometric status, aggression and gender differences in children’s expression of anger, happiness, and sadness. Participants were 2nd grade African American boys and girls (approximately 8 years old), half rejected and half average sociometric status, and half aggressive and half non-aggressive as assessed by their peers. Children interacted with a confederate in two standardized competitive game paradigms. Participants’ expression of anger, happiness and sadness were observationally coded across facial, verbal intonation, and nonverbal modalities. Rejected children expressed more facial and verbal anger than average status children. Rejected children also expressed more nonverbal happiness than average children, but only during turns of the game that were favorable to the participant. Finally, boys expressed more facial, verbal, and nonverbal anger than girls.

**LaFontana & Cillessen (2002)** examined the children’s perceptions of popular and unpopular peers in 2 studies. Study 1 examined the degree to which 4th-8th grade boys and girls (N=408) nominated the same peers for multiple criteria. Children viewed liked others as pro-social and disliked others as antisocial but associated perceived popularity with both pro-social and antisocial behaviour In study 2, a subset of the children from study 1 (N=92) described what makes boys and girls popular or unpopular. Children described popular peers as attractive with frequent peer interactions and unpopular peers as unattractive, deviant, incompetent, and socially isolated. In both studies, children’s perceptions varied as a function of the gender, age, and ethnicity of the participants.

**Sebanc et al. (2003)** conducted a study on 91 preschool children in the same sex quartets to explore peer preference by looking separately at the number of likes and dislikes a child received in sociometric interviews. Multivariate analysis revealed that sex interacted with rank to explain peer acceptance but not peer rejection. High ranked boys were accepted more by peers than low ranked boys, while low ranked girls were accepted more than high ranked girls. Further analysis revealed that girls, but not boys, accepted the low ranked girls.
Baddrudin (2005) found that there are difference of personality patterns in respect of different sociometric groups as measured through free expression drawings & paintings. Populairs were found emotionally open, combinative in imagination, practical in intellect & dynamic in activity. Neglectees, isolates & rejectees were also emotionally open but the difference was there in degree of the other groups.

Poulin & Dishion (2008) Studied methodological issues in the use of peer sociometric nominations with middle school youth. Participants were 664 sixth graders from three middle schools. Peer nominations for sociometric items (i.e., like most and like least), as well as teacher ratings of antisocial behavior and records of academic performance, were collected. A sequence effect in peer nominations was found. Results also indicated that the nominations received from the other-sex grademates and from the grademates outside the classroom improved the predictive validity of the sociometric measure.

Wallien, et.al. (2009) conducted a sociometric study on peer group status of gender dysphoric children, the social position of gender-referred children in a naturalistic environment. Peer nomination technique to examine their social position in the class was used. A total of 28 children (14 boys and 14 girls), referred to a gender identity clinic, and their classmates (n = 495) were included. Results showed that the gender-referred children had a peer network of children of the opposite sex. The social position of gender-referred boys was less favorable than that of gender-referred girls.

Lorenzo-Chávez et.al. (2011) investigated whether peer nominations of social behaviour and teacher ratings of adjustment varied by chronic and non-chronic peer rejection (sociometric status) in 188 Cuban elementary school children. Data were collected through questionnaires administered at schools in several parts of Cuba. Rejected children at year one had significantly higher scores on peer nominations for withdrawal and aggression. Rejected students also scored higher on impulsivity than other sociometric groups. They also had higher teacher ratings on externalizing and problem behaviours and lower scores on cooperation. In general, the implications for maladjustment were not substantially greater for being rejected by peers two years in a row than for being rejected at only one point in time.
The studies mentioned above indicate that group members perceive students with high sociometric status as friendly, cheerful and pleasant as also possessing socially desirable aggressive tenderness, while the students with low sociometric status are either rejected due to their unpleasant and gloomy appearance. Hence, sociometric results tend to provide useful clues regarding the adjustment of students within a class group.

2.2 STUDIES RELATED TO EDUCATIONAL ASPIRATION

The concept of aspiration in psychology was not very much recognized until 1930. For the first time was used by Hoppe (1931). Later studies related to the aspiration were carried out by Gauld and Kaplan (1940), and Lewin et al., (1944). Researches conducted in different areas e.g. family environment, socio-economic status, intelligence, interpersonal relations etc are abbreviated below. Joshi (1963) reported that intelligence is positively related to educational aspiration.

Blackman (1963) reported that there was a relationship between the level of intelligence and educational aspiration. However the relationship was not so high as one might expect. Social pressure plays an important role in distorting this relationship.

Kahl (1961) found that due to parental encouragement attention and high expectation children showed a high level of their aspiration while the parents, who did not take interest in the school activities of their children and had an attitude of hopelessness towards their children, the children had low aspirations in the field of education. The study also revealed the positive effect of intelligence on educational aspirations.

Alexander & Campbell (1964) studied the influence of peer group on students values, aspirations and beliefs and showed that involvement in peer group which does not place a high value on achievement lowers a students learning and educational aspiration rates. Similar results were found by Gordon (1957) and Coleman (1961).

Bisht (1972) studied level of educational aspiration in relation to socio-economic condition and educational attainment. The sample consisted of 100 students (fifty urban and fifty rural) selected from twenty schools (twelve urban and eight rural). The study revealed that the size of the family, educational facilities, recreational facilities, parental education and income were found to have significant influence on
educational aspiration. Position of the child and hobbies were not having any significant influence on educational aspiration. A positive relationship was found to exist between attainment and level of aspiration. Urban boys and English medium school boys had a higher educational aspiration than the boys of rural and non English medium school.

Majoribanks (1972) also revealed that parental reinforcement, warmth of attitude and higher expectation were found to helpful in increasing the level of educational aspiration of children. Similarly Norman (1972) revealed that educational aspiration was found to be related to family dynamics and peer influences.


Falk (1978) investigated that status attainment researchers have given much attention to white males and recently to blacks and women, but a largely overlooked dimension of the status attainment process has been the effect of school desegregation. This study used panel data collected from a quasi-experiment in rural East Texas. For 42 percent of the panel (N = 57) desegregation was introduced between the sophomore and senior years of high school; 58 percent (N = 77) remained in segregated schools. Although few differences were found in comparing mean levels of educational and occupational aspirations or in educational attainment, marked differences were found in the process of attitude maintenance and effects of attitudes on behaviour.

Pascarella (1984) tested the validity of a causal model of various influences on educational aspirations using 2,418 male and 2,744 female White undergraduates at 74 selective and less-selective 4-yr institutions. The model predicted that (1) Ss' academic aptitudes and parental educational level would influence secondary school
achievement and educational aspiration level upon entering college and (2) secondary school achievement and entering aspirations would have stronger effects on Ss' output aspirations 2 yrs after college entrance than would the institutional environment. When Ss entered college, information was obtained on their academic aptitude, high school grades, educational aspirations, and parents' education; 2 yrs later, Ss' college academic achievement and educational aspirations were reassessed. The institutional environment was also rated with regard to its selectivity. Results support both predictions of the model. However, there were statistically reliable influences of the college environment on students' educational aspirations 2 yrs after entrance.

Khan (1985) worked on educational and vocational aspirations of Hindu and Muslims school students. Data were collected from 55 Hindu boys, 59 Hindu girls, 66 Muslim boys and 53 Muslim girls studying in class X. Result showed that none of the Hindu boys and girls wished to leave school before 16 years, 5.7% of Muslim girls and 4.5% of Muslim boys wished to do so. A greater percentage of Muslim boys than girls wished to continue education even after completing their school. On the other hand, there was sex difference among Hindu boys and girls as regards to their future education.

Khan (1986) studied educational aspirations and occupational expectations among 30 blind and 30 sighted children (aged 11–14 yrs) attending 2 different high schools affiliated with the Aligarh Muslim University in India. An educational aspiration scale developed by the author and were interviewed concerning occupational expectations. Results reveal that blind children have lower educational aspirations than do sighted children and tend to have occupational expectations that are highly related to the type of training they receive at school. Possible causes for the findings were discussed, and suggestions for educational strategies and materials aimed at blind students were provided.

Odell (1989) investigated from his survey of 491 Grade 10–12 students in Ohio, USA, found that female students had higher aspirations than their male counterparts. Similarly, young people with higher socio-economic status were more likely to aspire to and attain post-secondary education, as were those whose parents had higher achievements.
Outside of the family, the neighborhood in which children live may influence their aspirations. Children gather information about the returns to education by observing the workers in their neighborhood. If children do not have accurate knowledge of wage differentials based upon educational attainment, knowledge that is difficult to acquire in neighborhoods of concentrated disadvantage, their aspirations will be affected. When neighborhoods are socially, economically, and racially segregated aspirations may be low, because children in these neighborhoods lack exposure to individuals similar to themselves and their families with high levels of educational and occupational attainment (Kao and Tienda, 1998; Stewart, Stewart, and Simmons, 2007).

Qian & Blair (1999) explored how human, financial, and social capital affect educational aspirations differently across racial/ethnic groups. While individual educational performance is important for all racial/ethnic groups, human and financial capital have stronger impact on educational aspirations for Whites than for minorities. Asian-American students’ aspirations are affected by human capital and whether English is a native language. Parental involvement in school activities—one measure of social capital—has a strong impact on educational aspirations for African Americans and Hispanics. The authors then explored the causes for racial/ethnic differences in educational aspirations. When individual characteristics and human, financial, and social capital are introduced, racial/ethnic minorities have greater educational aspirations than Whites. The results suggested that factors affecting educational aspirations are different across racial/ethnic groups and some of the racial/ethnic differences in educational aspirations can be accounted for by some other factors.

Wall et al (1999) examine relations among social support, perception of future opportunity, and education and career aspirations and expectations. 260 15–18 yr old students (grade 9–12) completed questionnaires designed. Path analyses showed that for both males and females, perception of opportunity predicts educational expectations, which, in turn, predict educational aspirations and career expectations. For females, peer, family and teacher supports predict perception of opportunity, whereas for males only family support is predictive of perception of opportunity. Data indicated that females perceive more teacher and peer support than do males, and that
compared to their male peers, females have greater perceived future opportunity, educational aspirations and expectations, and career expectations. Both males and females indicate a greater gap between career aspirations and expectations than between education aspirations and expectations. The possible contributions of socioeconomic conditions and gendered socialization are discussed.

Arunachalam, et.al. (2000) studied on the different aspiration differences existing among the final B.Sc. agricultural girl students in various campuses of TNAU (Tamil Nadu Agricultural University). A sample of 141 B.Sc. Agricultural female students were taken for the study. Result indicated that, majority of the students in all the colleges opted to pursue higher studies and seek employment after completion of their studies, most of the students preferred M.Sc. in higher studies, financial situation was a barrier to continue their studies, very less students opted self employment.

Mau & Bikos (2000) examined the relative importance of school, family, personal/psychological, race, and sex variables in predicting educational and vocational aspirations. A nationally representative sample of 5,670 10th-grade students was followed through 2 yrs beyond high school. Results suggested that sex and race significantly predicted educational and vocational aspirations of students. The educational aspiration model was shown to be more robust than the occupational aspiration model. Overall, students showed increase in educational and occupational aspirations, regardless of sex and race. Compared with other groups, Asian Americans had the greatest increase in educational aspirations. Female students, on the average, had higher educational and vocational aspirations. It is suggested that counseling interventions can be developed to address the school, family and psychological issues for those students who have low aspirations.

Buchmann & Dalton (2002) this article examined the effects of peers' (mean age 13) and parents' attitudes regarding academic performance on students' educational aspirations in 12 countries (US, Norway, Spain, Hong Kong, Korea, Thailand, France, Greece, Austria, and Switzerland). The results indicated that peers and parents influence educational aspirations in countries with relatively undifferentiated secondary schooling, like the United States, while the influence of significant others is negligible in societies with more differentiated secondary education. In these latter systems, it appears that aspirations are largely determined by the type of school the
student attends; there is little room for interpersonal effects. The effects of significant others on students' aspirations depend, in large part, on the structural features of the educational systems in which they operate.

Garg et al. (2002) recognized that both personal dimension (e.g. the impact of significant others or students' perception of their own personal attributes) and social dimensions (e.g. quality of schooling, or parental social class) are important transmitting factors. Parents in particular have been seen as the most significant others in shaping aspirations because they provide the opportunities, encouragement and support for their children's learning However, in economic models the problem of educational aspirations is viewed from a different perspective. They portray educational aspirations as a purely rational assessment of students' economic and social circumstances.

Rottinghaus et.al. (2002) examined the incremental role of personality, self-efficacy, and interests in explaining level of educational aspirations in a sample of 365 college students. Authors used the Adjective Check List (ACL), the Skills Confidence Inventory, and the 6 General Occupational Themes of the Strong Interest Inventory. The Big Five personality dimensions (Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness) were estimated from the ACL method. The authors predicted that each of these domains would make independent contributions to explaining level of educational aspirations (1=bachelor's, 2=master's, and 3=doctorate). The domains of personality, self-efficacy, and interests each made independent contributions to explaining the level of educational aspirations. As predicted, students aspiring to higher levels of education were characterized by higher Openness, Conscientiousness, Investigative Confidence, Investigative Interests, Artistic Interests, and scores on the Learning Environment personal style scale. Three results were not predicted for higher educational aspirations: higher Social Confidence, lower Neuroticism, and lower Enterprising Interests.

Hu (2003) examined educational aspirations and postsecondary access and choice by students in urban, suburban, and rural schools. In addition, this study raises issues with the methods in postsecondary educational research by using students in different grades (8th, 10th, and 12th grades) as baseline populations to compare educational outcomes. The results indicated that students in urban schools were comparatively
disadvantaged in the early years in schooling in terms of postsecondary access but appeared to be enrolled in postsecondary institutions at similar percentages as their suburban counterparts, if they made it to later years in K-12 schooling. For those students in urban schools who went to college, higher percentages were enrolled in private institutions and four-year colleges. Students in rural schools were consistently disadvantaged in postsecondary aspirations and enrollment, compared to students in other schools.

Kao and Thompson (2003) observed that although educational aspirations are an important predictor of eventual educational attainment “their position in recent social science literature is more problematic”. They indicated that the nature of the associations between aspirations and attainment for young adults from different family backgrounds continues to be unclear (Saha, 1997).

Marjoribanks (2003) a moderation-mediation model was constructed to examine relationships among learning environments, adolescents' educational aspirations and the educational attainment of young adults from different family contexts. Data were collected on 4382 females, 3940 males. The findings from the two investigations indicated that when distal family contexts were defined conjointly by family social status and parents' aspirations: (1) distal family contexts, academic performance and learning environments combined to have large associations with adolescents' educational aspirations; (2) distal family contexts, adolescents' learning environments and educational aspirations combined to have large associations with young adults' educational attainment; and (3) there were family-context differences in the linear and curvilinear nature of the relations among measures of individual characteristics, learning environments and educational outcomes, and these also varied between females and males in those family contexts.

Pallas (2003) reflected that western assumptions/contexts, which are likely to differ from other contexts such as Ethiopia where wider structures play influential roles, because educational aspirations and educational achievements are circumscribed by the prevailing social and political structures. Structures provide opportunities or impose constraints on achievements. Social backgrounds affect both educational and occupational transitions. They structure the choices that individuals make, and shape the conditions in which the individuals can exercise choice.
Khoo and Ainsley (2005) argued that educational aspirations is a topic that lies on the edge of economic analysis. Still, the aspirations are studied rather by sociologists and psychologists than economists. There are different theoretical perspectives on the interpretation of educational aspirations and their significance for the future behaviour. The dominant model is the sociological theory of status attainment, which stresses aspirations as a cognitive state that motivates or drives young people to strive for academic success.

Marjoribanks (2005) in this longitudinal study, relationships were examined between educational aspirations and educational attainment for Australian young adults from different ethnic and social status backgrounds. Participants included 6,811 (3,547 women and 3,264 men) young adults (mean age = 20.3 years) who were in Year 9 when the study began. In the analysis, the AM Statistical Software was used to take into account the design features of the sample. The results indicated (a) that family background and adolescents’ aspirations combined to have large associations with young adults’ educational attainment, (b) there were gender differences in the linear and curvilinear nature of relationships among family background, adolescents’ aspirations, and young adults’ attainment, and (c) for young adults from lower social status families there were ethnic group differences in attainment at all aspiration levels, whereas for young adults from higher social status families, ethnic group differences in attainment were minimized at high aspiration levels.

Garg et.al. (2006) investigated that youth from single-parent families report lower educational aspirations than those from two-parent families. Study explored the influence of background factors (gender, grade, parental education and SES), parental involvement with education, academic self-concept, and peer influences on educational aspirations. The participants were Canadian adolescents; 2751 from two parent and 681 from single-parent families. ANOVA results showed that adolescents from single-parent families scored significantly lower than adolescents from intact families on educational aspirations, and other predictor variables. Hierarchical regression analysis showed that the pattern of relationships between educational aspirations and other factors was very similar for adolescents from both types of families; namely academic self-concept significantly predicted educational aspirations. The family involvement and background factors predicted educational
aspirations via academic self-concept. Having academically oriented peers was especially beneficial to adolescents from single-parent families.

Vaidya (2006) worked on educational aspiration of higher secondary students in relation to different variables. The sample consisted 480 of higher secondary students; boys 240 and girls 240 from four higher secondary schools. The result found that mean score of Educational Aspiration of higher secondary students was 28.07 (Range 0 to 40), it indicated the awareness towards education was increased in the society, boys had higher educational aspiration in comparison to girls, the students from urban area had higher educational aspiration than rural students, the students from non governmental school had higher education aspiration than the students form government school, the students form science stream had higher educational aspiration than the students from stream, so far as Classes XI XII others were concerned it makes no significant difference regarding educational aspiration of higher secondary students, gender, area and socio-economics status of the students have a significant group effect on their educational aspiration and type of schools; stream and standard of students do not have a significant group effect on their educational aspiration, educational Achievement, Selfconcept and Achievement Motivation of the students had a significant group effect on their educational aspiration, a positive correlation was found between educational aspiration and socio-economic status, educational achievement, achievement- motivation of the students and a negative correlation was found between educational aspiration and self-concept.

Beal & Crockett (2010) this longitudinal study explored adolescents' future-oriented cognitions, current activities, and later educational attainment using data from 317 adolescents (55% female; mean age = 14.98 years, SD = 0.85) followed into early adulthood. Aspirations and expectations regarding work and education showed modest stability from year to year. Exploration of the reciprocal relations between these cognitions and adolescents' activities supported both unidirectional and bidirectional effects, with different patterns emerging for aspirations and expectations. In multiple regression analyses, future-oriented cognitions predicted adult educational attainment; follow-up analyses indicated that the effect of adolescents' expectations was partially mediated by participation in extracurricular activities. These results
suggested a potentially important influence of adolescents’ future-oriented cognitions on their current behaviour and future attainments.

Geckova et al. (2010) aimed to explore the association between health, socioeconomic background, school-related factors, social support and adolescents’ sense of coherence and educational aspirations among adolescents from different educational tracks and to contribute to the existing body of knowledge on the role of educational aspirations in the social reproduction of health inequalities. The study was conducted on 1992 female adolescents. Found statistically significant associations with educational aspirations for the factors parental educational level, father’s unemployment, doubts about the affordability of future study, school atmosphere, attitude towards school, social support from the father and a sense of coherence. Social support from the mother and friends was not associated with educational aspiration, nor was self-rated health. Besides affinity towards school, the determinants of educational aspirations differed among adolescents on different educational tracks.

Rothon et al. (2010) examined the factors that are associated with high educational aspirations. It also looks at the relationship between aspirations and achievement at the General Certificate of Secondary Education in a deprived area of London. The results showed that educational aspirations were associated with individual characteristics. Girls were more likely than boys to express a wish to remain in education beyond the age of 16. For the most academic route post-16, there were substantial ethnic differences, with minority ethnic groups generally being more likely to state a desire to follow this path. Students who were eligible for free school meals tended to have lower aspirations. Further Socio-psychological variables were also shown to be of importance, particularly self-esteem and psychological distress. Importantly, educational aspirations had a strong association with actual achievement at age 16, remaining associated even after controlling for a number of other variables, including prior achievement.

Tafere (2010) examined the changing educational and occupational aspirations and educational achievements of children living in poor communities in Ethiopia. The results suggested that children had high aspirations at an earlier age but that these changed later, with poverty rarely influencing their earlier aspirations but having a
strong impact later on. Children with high educational achievement, mostly urban children and some rural girls, maintained their high ambitions.

Strawinski (2011) studied the extent to which different environmental and institutional surroundings affect educational aspirations. The study was conducted between different local municipalities in Poland, used statistical description to compare educational aspirations in selected regions of Poland and apply econometric techniques to test formally the relation between educational aspirations and education, income and other socioeconomic factors. The results showed that the level of aspirations is well diversified and is higher in developed areas of Poland, also found that contrary to the existing literature, the educational aspirations seem to rise with age of the respondent.

2.3 STUDIES RELATED TO GENERAL MENTAL ALERTNESS

A number of the studies (Draley 1940, Ellision and Edgerton 1941, Goodman 1944, Williams 1952, Jex and Sorenson 1953, Mitchell 1955, Wolking 1955, Layton and Swanson 1958) observed that the Thurston’s primary mental abilities test correlated on the whole as well as most of the standardized intelligence test with college success.

The investigator who made several attempts in this direction using PMA (primary mental abilities) and General aptitude test battery found that V(Verbal) and R (reasoning) factors usually give the highest correlation with success in every school or university subject (Holzinger and Crowder, 1959)

Alexander (1964) identified factors as main primary mental abilities. The important findings of this investigation for technical school pupil was that the measures of school achievement showed a separate group factor other than G(general factor), V(Verbal factor), he called this factor as X. He referred this factor related to personality and interest.

Shahi (1973) established the hypothesis of no sex differences in mental structure of boys and girls. The other significant findings was the ‘g’ was represented among boys by a combination of reasoning and memory function along with verbal content while among girls it was represented by a combination of reasoning function along with verbal and spatial content.
Van Valen (1974) rekindled discussion of brain size/GMA (general mental ability) relations in *Homo sapiens* by reviewing a handful of studies using external head size which, when corrected for attenuation of measurement, gave an estimate of $r = 0.30$. He pointed out, it was predictable that correlations between IQ and overall brain size would be modest. First, much of the brain is not involved in producing GMA; thus, variation in size or mass of that tissue will lower the correlation. Second, the measures of GMA were imperfect.

Downing (1975) studied the relationship of critical reading ability and intelligence in grades thirteen and fourteen. The sample included 244 males and 291 females. He found significant relationship between intelligence as measured by mental ability test, and selected critical reading skills as measured by advanced critical reading test. No significant difference was found in critical reading between males and females.

Manning (1977) study indicated that a significant relationship existed between the scores obtained by 50 students of tenth grade on the Gates Mac Gnite Reading test and the Stanford-binet intelligence scale. However, no significant differences were found between the scores of males and females on the reading test.

Roberge and Flexor (1981) studied the relationship between intelligence and academic achievement. Thorndike intelligence test was employed as a measure of intelligence and scores of reading and mathematics as a measure of achievement. The coefficient of correlation between mental ability and reading, mathematical problem was found to be as high as 0.58 and 0.61 respectively.

Singh (1983) studied that the mental abilities, namely numerical ability, reasoning ability, memory and symbolic represented indicated a positive influence on achievement.

Czerwinska (1984) conducted a study on 200 7th graders who were administered a sociometric questionnaire of peers popularity and a guess who test of peer assessment, and their teachers completed a questionnaire assessing students’ functioning in the school setting. Average ratings of all students over the previous 2 years were examined to establish students’ academic success. Findings showed that teacher and peer attitudes towards students with higher mental abilities differed in accordance with the kind of mental ability. The most popular and well-liked students were
extremely intelligent. Students rated as creative but less intelligent were the least popular and the least liked.

**Paul (1985)** investigated the relationship between speed information processing and intelligence. Fifty university students were taken into account. The result indicated that the speed with which individuals can perform different cognitive processing is highly related to their intelligence, and that conservatively speaking, average RT can explain approximately 20% and intra individual variability of RT can account for approximately 25% of the variance in subjects general intelligence.

**McDaniel (1986)** argued that both job experience and mental ability cause individual differences in job performance indirectly through their direct effects on job knowledge and performance capability. They held that while individual differences in mental ability remain constant with time, relative differences in job experience decrease with increasing levels of job experience. Relative differences in mental ability remain constant across all levels of job experience.

**Revis (1986)** examined the relationships of two simple cognitive functions, reaction time and visual recognition memory, intelligence and educational achievement in a sample of 50 adults males. The result indicated that the performance on the recognition memory task was significantly related to intelligence with association being confined primarily to the nonverbal aspects. The reaction time measures failed to show any relationship to intelligence.

**Singh (1986)** investigated into the relationship between achievement-motivation, intelligence (general mental efficiency), introversion-extroversion, achievement in mathematics. The sample consisted of 184 students. He found that correlation between intellectual efficiency, introversion - extroversion, socio cultural status and mathematic achievement was significant.

**Zais (1986)** studied the relationship between intelligence and academic achievement, anxiety and interpersonal stress on intelligence, academic achievement. Four hundred students at four military college were taken. The study found that neither test anxiety nor interpersonal stress moderated the intelligence-academic achievement relationship.
Mian, Shamshad (1988) compared boys and girls with regard to intelligence, neuroticism, scholastic achievement and need achievement. It was found that girls were superior to boys in intelligence and scholastic achievement; on the other hand boys had a higher score in achievement motivation, level of success, perseverance and realistic attitude. No significant difference was found between boys and girls in neuroticism, ego ideal and internal control of fate. With intelligence as a constant variable, high scores as compared to low scores in intelligence were low in neuroticism and high in scholastic achievement, ego ideal, perseverance and realistic attitude. High intelligence boys as compared to high realistic attitude. High intelligence boys as compared to high intelligence girls were less neurotic, possessed realistic and had hope of success. There were no significant difference between low intelligence girls and boys with respect to neuroticism, scholastic achievement, ego ideal and internal control of fate.

Ushasree and Chandrakeerti (1989) aimed to explore the mental ability and academic adjustment of pupils who are problematic to their teacher at school. The sample consist of 100 pupils with academic behaviour problems and 100 without academic behaviour problems. The results showed positive correlation between mental ability and academic adjustment, and pupils with problem behaviour were found to be low in mental ability and with poor academic adjustment.

Holburn (1992) examined test bias in the intermediate mental alertness test, high level figure classification test, Blox test and mechanical comprehension test for apprentice applicants is reported. The sample consisted of 206 Asian, 208 black, 102 colored and 99 white mostly male applicants. The result included, that the intermediate mental alertness test had the almost bias.

Kiers et.al. (1993) studied the effect of stimulus intensity, coil size, mental alertness and pre stimulus muscle contraction on the variability of motor evoked potentials(MEPs) produced by magnetic cortical stimulation (MCS). In 5 healthy subjects we delivered MCS either with a circular coil centered at the vertex or a figure-8 coil centered over the motor cortex hand area, recording from first dorsal interosseous. Data was performed on 300 consecutive stimuli. Cross-correlation analysis did not identify a consistent dominant frequency, suggesting that the variability in MEP size is essentially random.
Mehta (1993) studied a cross cultural illusion in relation to general mental alertness and academic performance. A sample of 1000 students was taken for the study. The study revealed that the female students have high mental alertness than male students in the whole sample. The study also revealed that the science students were much more mentally alert than arts students.

Singh & Srivastava (1995) explored the development of the conception of intelligence among 90 Indian children (Grades 4-12). Students were asked to narrate the characteristics of 2 of their classmates whom they considered most and least intelligent. Responses were analysed into 4 categories (i.e., skill and ability, behaviour and habit, likes and dislikes, and achievement). Students perceived the most intelligent child to be good at cognitive, behavioural and interpersonal relationships. Such a child likes and is liked by teacher, friends and family members and obtains higher grade in the class.

Thomas (1996) studied the relationship of specific mental ability measures compared to a general mental ability measures to quality and quantity performance on a clerical job sample. A sample of 51 university students completed a battery of pre-employment tests and, a week or two later, worked on a clerical job sample. The results indicated that quality of performance (number of errors on the task) was best predicted using the number of errors made on the predictor tests while quantity of work was only predicted by the number correct.

Judge et.al. (1999) investigated the relationship of traits from the 5 factor model of personality (often termed the “Big five”) and general mental ability with career success. Data were obtained from the inter generational studies, a set of 3 studies that followed participants from early childhood to retirement. The most general findings were that consciousness positively predicted intrinsic extrinsic career success, neuroticism negatively predicted extrinsic success and general mental ability positively predicted extrinsic career success.

Kaur (2001) studied the correlation with the values of self-concept and independent variables such as intelligence, creativity and achievement of rural and urban schools. Descriptive school survey method as well as qualitative approach was adopted for the study. A sample of 510 girls students (230 rural + 280 urban), studying in Class IX,
from Punjab, using probability sampling was used for the study. Children self-concept scale, Group Test of General Mental Ability, Creative Activities Checklist and Academic Achievement Test were used in the study. The result found that Variable of intelligence and creativity to be positively significant with self-concept in urban as well as in rural, no correlation found between the variable of achievement and self-concept, it was revealed that variable of achievement contributed 13.6% variance in predicting the self-concept of urban girls, it was made clear that conjoint effect of variable of intelligence creativity of achievement is higher in both the samples as compared to predicting the self-concept.

General mental ability (GMA) is a conceptualization of intelligence that is widely used. It has been defined as a very general mental capability, that among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly, and learn from experience. Put more simply, it is defined as the ability to learn. Contrary to popular conception, GMA refers not to genetic potential, but to developed general cognitive ability. The fact that GMA scores are influenced by genes does not change the fact that they reflect more than just genetic potential (Schmidt, 2002).

Vyas (2002) compared the academic performance of students in respect of different learning styles; studied the effect of ecological correlates on the academic performance of girls students; studied the interactive effect of mental ability and learning styles on academic performance of girl students; also studied the interactive effect of ecological correlates and learning style on academic performance of girls. A sample of 500 girls from Class XII of 16 Government Sr. Secondary schools were taken. The results found that the environmental, emotional, sociological dimension of learning style does not affect significantly the academic performance of girls, residence as urban/rural and ecological correlates have significant affect on the academic performance of girls, parents’ education, occupation and income do not affect significantly the academic performance of girls, the environmental dimension of learning style preference does not affect the academic performance where as mental ability influence the academic performance of students, an ecological factor namely, residence and its interaction with environmental has found significantly contributing towards the better learning style of academic performance.
Saklofske, et.al. (2003) suggested that intelligence test performed personalities are related. The study examined Wechsler intelligence scale for children-Revised subtest and IQ score patterns in a sample of children classified as introverts and extroverts. The findings of the study supported Eysenck’s hypothesis that intelligence and personality are uncorrelated.

Salgado et.al. (2003) studied a comprehensive meta-analysis of the validity of general mental ability(GMA) measures across 12 European community (EC). Result showed the magnitude that job complexity moderated the magnitude of the operational validity of GMA tests across three levels of job complexity: low, medium, and high.

Smit et.al. (2003) studied mental effort causes vigilance decrease due to resource depletion. The resource view on vigilance performance was tested. First, a low demanding task was compared with a similar low demanding task in which stimulus presentation was less monotonous due to added irrelevant, stimuli. Result showed that performance was unaffected by added stimuli.

Schmidt and Hunter (2004) claimed that GMA predicts occupational level attained and performance within one’s chosen occupation better than any other ability, trait, or disposition and better than job experience. Further, Fulmer and Barry (2004) suggested that GMA (general mental ability) influences performance in various situations (job performance, training success, educational attainment, etc.), and it becomes even more predictive of performance as situations become more complex (e.g., in managerial jobs and under conditions of unexpected change).

Ravi (2004) studied the cognitive abilities and their effect on receptive skills among primary school children. Descriptive and narrative survey method was adopted for the study. The result indicated that there was an interrelationship between the receptive variables such as reading and listening in Tamil and English language. It was indicated that the growth and development was indicated of receptive skills such as intelligence, aptitude and scholastic achievement of the primary school children, cognitive abilities of the Primary School children enabled them to improve their reading and listening skills both in Tamil and English, it was found out that not only the cognitive abilities but also some of the non-cognitive factors V12 failure tolerance
focus of control study habits and certain personality traits influence the acquisition of receptive skills among the primary school children.

Schippmann & Prien (2005) investigated the relationship of general mental ability and a select set of personality characteristics to a constructed criterion of management success which reflected relative rate of career progress. Data were collected in the context of an operational individual assessment program from a total of 296 persons in non management up through top management positions in a variety of service and manufacturing organizations. Primary (n=148) and hold-out (n=148) samples were identified and a stepwise multiple regression analysis was performed on the primary sample. Cross-validation indicated that a two-variable linear composite accounted for 20.9% of the variance in the dependent variable.

Aruna & Usha (2006) investigated the effect of cognitive style, intelligence and classroom climate on process outcomes in science. The sample size was taken 1,000 persons and selected through proportionate stratified sampling technique and considering other factors like sex, locality of students and management category of schools. The result indicated that the cognitive style and intelligence have significant positive correlation with process outcomes in science, while the classroom climate has no significant effect on process outcomes in science.

Jackson & Ruston (2006) found that 17- to 18-year old males averaged 3.63 IQ points higher than did their female counterparts on the 1991 Scholastic Assessment Test (SAT). They analysed 145 item responses from 46,509 males and 56,007 females (total N=102,516) using a principal components procedure. They found (1) the g factor underlies both the SAT Verbal (SAT-V) and the SAT Mathematics (SAT-M) scales with the congruence between these components greater than 0.90; (2) the g components predict undergraduate grades better than do the traditionally used SAT-V and SAT-M scales; (3) the male and the female g factors are congruent in excess of .99; (4) male–female differences in g have a point-biserial effect size of 0.12 favoring males (equivalent to 3.63 IQ points); (5) male–female differences in g was presented throughout the entire distribution of scores; (6) male–female differences in g were found at every socioeconomic level; and (7) male–female differences in g are found across several ethnic groups.
Marshall et al. (2006) developed a method for determining mental alertness level by monitoring point of gaze, pupillary movement, pupillary response, and other parameters in a subject performing a task, collecting the data in a database, analyzing the data in the database, and assigning the subject to a score indicating the subject's particular mental alertness level in real time.

Davidson (2008) in his study 50 persons whose intelligence was originally tested with Bureau Test VI were retested after a 10-year period. They had been employed in the same company during this period. There was a correlation of 0.89 between the 2 tests. The employees were classified into 3 job levels according to the job held at the end of the 10 years of service. These groups were simple clerical work, complicated clerical work and decision-making jobs. The correlations of the intelligence tests with this variable were 0.77 for Bureau Test VI and .83 after 10 years of service.

Schultz (2008) worked on the mental alertness examination for the working age level. The Viteles Mental Alertness Examination (T-100) was given to 392 pupils. Sixth- to eighth-grade public school children comprised 293 of the cases, and the remaining 99 were from a trade school for girls (median age 16-7). T-100 correlates with Otis Intermediate as a criterion to the extent of $r = 0.796 \pm 0.0153$ for 267 cases. Local city examinations and T-100 correlate $0.907 \pm 0.0140$ ($N = 72$); and city and Otis correlate $0.715 \pm 0.0383$ ($N = 82$). The reliability (odd vs. even) is $r = 0.907 \pm 0.0069$ for 293 cases and increases with higher grade. The total group contained 115 Italian and 118 Jewish children. The test differentiates reliably between the two groups in favor of the Jews. Neither age nor sex is a significant factor in performance; but for grade and performance $r = 0.575 \pm 0.0273$. The trade school girls, older and with more schooling, score higher than public school girls.

Yates (2008) studied a group of high school seniors of superior intelligence. The Otis group test (Oakland edition) was given to five hundred and forty-three high school seniors of Oakland, California. The twenty pupils who scored the highest were selected for study. For comparison, another group of twenty, whose score lay at, or next to, the median score, was chosen. The mental test ratings of the superior group ranged 165-149 (possible score 172). The median for all the seniors was 118. There were 14 boys and 6 girls in the superior group and the girls were noticeably below the boys, both in the small superior group and in the senior class as a whole. It was found
that 75 per cent. of the superior group had scholarship records at or above 2 while only 50 per cent. of the median group are similarly graded. The home conditions of the superior group were unusually satisfactory; good, sensible, "American" homes. The study showed that: (1) Mentally superior high school pupils come from homes where conditions are favorable to right development. (2) They are generally precocious physically as well as mentally. (3) They are not below the average in general health. (4) They have less paid employment outside the home than their fellows, and spend more time in reading. (5) They have more intellectual interests, and seemed to be somewhat better leaders and organizers than average young people. (6) Pupils of superior and average intelligence have very similar vocational aims.

**Bills (2009)** studied the relation of mental alertness test score to position and permanency in company. In five distinct clerical jobs 133 individuals were given the mental alertness test. The correlation between the mental alertness score and the level of difficulty of work performed by the individual was +.22. After thirty months the score of those still remaining in the company were used and the correlation was +.41.

**Cunningham (2009)** investigated the comparability level of the Thurstone Test of Mental Alertness (TMA™) when administered in both a paper-and-pencil format and an online, web-enabled format. The obtained results were consistent with the Study I results and supported the notion that students would obtain similar scores on the Internet version of the TMA when compared to the scores they produced when they took the TMA in the traditional paper-and-pencil format. The study concluded was reached that the reliability and validity data produced to support the paper-and-pencil version of the TMA can also be used to support the reliability and the validity of the Internet version of the TMA.

**Munde et al. (2009)** studied that direct support persons (DSPs) often face problems in observing and determining alertness in individuals with profound intellectual and multiple disabilities (PIMD). The results showed that two types of descriptions of alertness can be distinguished: (1) those with a focus on the individual only or (2) those with a focus on the interaction of individual and environment. Several observation categories were used in the studies that were found. Only a limited number of environmental conditions that were expected to have an impact on alertness in individuals with PIMD were investigated. While modifications of the
environment, interaction strategies, stimulation strategies and staff training were found to have a positive impact on alertness, studies about treatment activities led to conflicting results.

**Rushton & Ankey (2009)** reviewed the literature on the relation between whole brain size and general mental ability (GMA) both within and between species. 28 humans were used for samples, using brain imaging techniques, the mean brain size/GMA correlation is 0.40 ($N = 1,389$; $p < 10^{-10}$); in 59 samples using external head size measures it is 0.20 ($N = 63,405$; $p < 10^{-10}$). They also described the brain size/GMA correlations with age, socioeconomic position, sex, and ancestral population groups, which also provide information about brain–behaviour relationships. Finally, they examined brain size and mental ability from an evolutionary and behaviour genetic perspective.

**Segal & Johnson (2009)** worked on twin studies of general mental ability. They said that twin studies are a vital source of information about genetic and environmental influences on general mental ability. The classic twin design-comparison of the relative similarity between monozygotic (MZ) and dizygotic (DZ) twins-is a simple and elegant approach to estimating the effects of genes and experience on developmental traits. However, while this method was considered state of the art in behavioural genetics in the 1960s and 1970s, it is now only one of many more sensitive and sophisticated twin designs. Twin research on behavioural and medical traits, in general, and on intelligence, in particular, has advanced at an impressive rate.

**Borg (2010)** worked on a group of 427 students at the California College of Arts and Crafts who were given the A.C.E. Psychological Examinations made scores closely approximating in mean and distribution, those of the published norms. L, Q, gross, and subtest scores all showed low positive correlations with grade-point averages. The art teaching group was slightly superior to the fine arts group and the commercial art group. The men's average was higher than the women's on Q scores.

### 2.4 STUDIES RELATED TO IMPULSIVENESS

**Eysenck and Eysenck (1968)** early two-factor personality theory identified impulsivity as a component of Extraversion, linked to low cortical arousal and a consequent need for stimulation (resulting in sensation seeking).
Gray (1970) proposed that behaviour was governed by the balance between three motivational systems. He identified the BAS system, as the basis for impulsivity.

Eysenck & Eysenck (1977) reported three questionnaire in which sets of items traditionally used to measure impulsiveness were intercorrelated with measures of the major personality dimensions E(extraversion), N(neuroticism) and P(psychoticism), and also with the L(lie; dissimulation) scale. It was found that impulsiveness in the broad sense (ImpB) breaks down into four factors, narrow impulsiveness (ImpN) or, risk-taking, non-planning and liveliness, which are replicable from sample to sample and from males to females. These factors are positively correlated with each other and also with sociability to varying degrees.

Lock (1985) determined training based on daily school work could be carried on effectively by the child’s teacher and the instruction generalize to five cognitive styles; classroom behaviour, impulsivity, field dependence, successive cognitive processing, and simultaneous cognitive processing. Result indicated that classroom training by paraprofessionals and the use of academic materials may not be an effective means for altering these cognitive styles.

Men score higher than women on Venturesomeness (Eysenck, Pearson, Easting & Allsopp, 1985) and it is positively correlated with the male hormone testosterone (Aluja & Torrubia, 2004; Coccaro, Beresford, Minar, Kaskow & Geracioti, 2007; Daitzman & Zuckerman, 1980).

Sharma (1987) worked on effects of intensity and order of verbal reward on interpersonal attraction of males and females of different impulsive character. A sample of 240 subjects including 120 males and 120 females students of VIII, IX, X & XI classes belonging to the age group of 12 to 16 years was selected. The investigator observed that low impulsive subjects showed maximum attraction, while the attraction is found to be minimum, in the case of highly impulsive subjects.

Cloninger (1986) used the term Novelty Seeking as an alternative to _impulsivity_, clearly identifying its appetitive motivation.

Carlson, et.al. (1987) studied on Peer sociometric nominations of clinic-referred children given the diagnosis of Attention) Deficit Disorder with Hyperactivity (ADD/H) or Attention Deficit Disorder without Hyperactivity (ADD/WO) were
compared to one another and to those of normal control children. Only children with ADD diagnoses in the absence of other major diagnoses were included. Both children with ADD/H (n=16) and ADD/WO (n=11) received significantly fewer “liked most” nominations, more “liked least” nominations, and lower social preference scores than normal control (n=45) children. Results confirmed previous findings of social deficits in children with ADD/H, even when codiagnoses are excluded. In addition, they support the validity of the diagnostic category of ADD/WO by demonstrating that the ADD/WO behaviour pattern is apparently “psychopathological” in being associated with peer unpopularity after codiagnoses are excluded. When larger groups including all codiagnoses (primarily Conduct Disorder) of children with ADD/H (n=36) and ADD/WO (n=20) were compared, identical patterns of peer unpopularity were found, except that children with ADD/H also were significantly more likely to be nominated as a child who “fights most”.

**Olson & Lifgren (1988)** found that behaviour measures of low regulation and high impulsivity were correlated with concurrent negative nominations from preschool peers. In that study high levels of positive peer nominations and or low levels of negative nominations also predicted high self-regulation and low impulsivity on the tasks.

**Eysenck & Gudjonsson (1989)** disaggregated impulsivity, he aligned impulsiveness with Psychoticism, a dimension characterized by insensitivity to punishment, poor impulse control, and a tendency to respond without regard to interpersonal consequences.

**Pani (1989)** examined the differences in performance of children possessing reflective and impulsive cognitive tempo on measures of reading comprehension and reading awareness. Seventy grade four children were administered, reasoning comprehension and reading awareness test. In case of reading comprehension the reflective children were found to be superior as compared to their impulsive counterparts. On the contrary there was no significant difference between these two groups on reading awareness test.

**Zuckerman (1989)** suggested that the P factor really represents his dimension of impulsive sensation seeking. In support of this contention, the ImpSS scale loads
strongly on a psychoticism factor, the best marker of which is Eysenck’s P scale. He also found that in terms of item content, the Venturesomeness scale resembles sensation seeking, rather than impulsiveness.

David, et.al. (1990) worked on Children's automatic and reflective social problem-solving skills by requiring them to generate solutions to hypothetical social problems immediately after hearing them or after being required to wait 20 sec before answering. When responding immediately, a condition designed to evoke Ss' automatic response tendencies, both aggressive and nonaggressive, rejected boys generated fewer verbal assertion responses and more conflict-escalating responses than did non rejected boys. When required to delay before responding, a condition that encouraged reflective reasoning, only the responses of aggressive rejected boys differed from those of non rejected boys. Similar status-related differences in the solutions proposed by female Ss were not found.

Silverman, et.al. (1991) found greater independent risk of affective and impulsive personality disorder traits in 129 relatives of people with border line personality disorder than in people with other personality disorders or with schizophrenia.

Schaughency, et.al. (1992) worked on Correlates of sociometric status in school children in Buenos Aires. Teacher ratings on Spanish translations of the Comprehensive Behaviour Rating Scale for Children and peer nominations were obtained for 110 school children (42 boys and 68 girls) in grades 2– 5 at a public elementary school in Buenos Aires. Nominations of “likes best” were negatively correlated with language processing deficits, attention problems, and sluggish tempo as rated by both teachers and peers, and positively correlated with teacher ratings of social competence, for both boys and girls. The reverse pattern was found for nominations of “likes least.” Children were assigned to sociometric status groups of popular (n=27), rejected (n=28), neglected (n=7) controversial (n=11), and average (n=37) based on number of LL and LB nominations. Rejected and popular children could be differentiated by teacher and peer ratings of linguistic information processing deficits, inattention, and sluggish tempo. Behavioural characteristics of motor hyperactivity, impulsivity, and aggression were significantly associated with being male but did not differ by sociometric status group.
Eisenberg, et.al. (1993) studied that kindergartner’s to third graders children rated as high in attention effortful control (AEC) were linked by peers and perceived as populars by teachers, those who scored relatively high on reactive control rather than impulsivity were rated as socially appropriate/prosocial by both peers and adults.

However, a number of researchers have found the impulsivity and risk-seeking subscales to be almost as predictive as the full scale (Deschenes & Esbensen 1999; Longshore, Turner & Stein, 1996; Nakhaie et al., 2000; Piquero & Rosay, 1998; Wood, Pfefferbaum & Arenklev, 1993). Of the two traits, risk-seeking shows the stronger association with crime (Nakhaie et al., 2000; LaGrange & Silverman, 1999).

Eysenck (1993) disaggregated impulsivity into two components: Impulsiveness (poor impulse control); and Venturesomeness (stimulus hunger). The I7 inventory was developed to measure Impulsiveness and Venturesomeness as distinct traits.

Grasmick, et.al. (1993) studied that low self-control has been measured as a combination of impulsivity, risk seeking, preference for simple tasks and physical activities, temper, and self centeredness.

Bechara, et.al. (1994) investigated that the findings from the IGT should also be treated with caution since, as we have noted, this was not originally designed as an impulsivity measure.

White, et.al. (1994) examined various behavioural measures of impulsivity and found that those related to the control of motor behaviour correlated more strongly with delinquency than those measuring cognitive impulsivity.

Voyer & Bryden (1995) studied that although women demonstrated higher impulsivity in visual-cognitive tasks, result should be treated with caution. Most of these tasks were not originally designed to assess impulsivity. By employing number of errors as the measure of impulsive responding, they conflate men’s established superior visual spatial abilities with lower impulsivity.

Bjorklund and Kipp’s (1996) proposed that men are more impulsive than women in social problem solving. Whereas this tendency may, as Bjorklund and Kipp suggested, derived from the evolutionary advantages accruing to women who could
suppress and conceal emotion toward others, it is also consistent with women’s
greater interpersonal interests. Women have been credited with more sensitive social
skills and with a stronger interpersonal orientation than men (Cross & Madson,
1997; Hall, 1984; Horgan, Mast, Hall & Carter, 2004; Su, Rounds & Armstrong,
2009).

Bjorklund and Kipp’s (1996) proposed that sex differences in impulsivity was not
restricted to the domains of aggression and risk taking. Women can gain additional
genetic and material resources from clandestine copulations; thus, inhibitory control
over the Rothbart and co-workers explored the concept of effortful control as a form
of self-regulation from a developmental perspective (Rothbart & Bates, 2006;
Rothbart & Derryberry, 1981; Rothbart & Posner, 2006). Their model includes
lower-level motivational approaches but is distinguished by its emphasis on the
child’s acquisition of higher-level cognitive control of impulsivity.

Zuckerman & Cloninger (1996) studied that novelty seeking is associated with
activity in the dopaminergic reward system and is expressed as a tendency to respond
to novel stimuli with excitement. The scale is composed of four facets: Exploratory
Excitability, Impulsiveness, Extravagance, and Disorderliness. This form of
impulsivity bears a strong resemblance to sensation seeking: Not only does it
correlated highly ($r = .68$) with the Zuckerman’s ImpSS scale, but both scales
correlated negatively with monoamine oxidase levels, suggesting a common
biological basis.

Evenden (1999) summarised evidence for varieties of impulsivity from several
different areas of research: human psychology, psychiatry and animal behaviour.
Result suggested that several neurochemical mechanisms can influence impulsivity,
and that impulsive behaviour has no unique neurobiological basis. Consideration of
impulsivity as the result of several different, independent factors which interact to
modulate behaviour may provide better insight into the pathology than current
hypotheses based on serotonergic underactivity.

Conners (2001) stated that the impulsivity/Emotional lability factor resembles
childhood impulsivity but also includes impulsive verbal outbursts, “hot temper,”
stress intolerance, irritability, and labile mood.
When we consider effortful control conceptualisations of impulsivity, however, sex differences are likely to depend on the inventory or task used (Costa et al., 2001; Feingold, 1994; McCrae et al., 2005). Different behavioural measures appear to assess quite different components of impulsivity, ranging from errors in spatial navigation to a tendency to favour immediate over delayed reward.

Moeller et al. (2001) discussed the relationship of impulsivity to psychiatric disorders and present selected hypotheses regarding the reasons for these relationships. Result suggested that Impulsivity, on the basis of a biopsychosocial approach, is a key feature of several psychiatric disorders. Behavioural and pharmacological interventions that are effective for treating impulsivity should be incorporated into treatment plans for these disorders.

Murray & Kochanska (2002) studied that performance on executive function tasks is often referred to in terms of ability or deficit, implying degrees of competence; impulsive actions are seen as failures of effortful control. As with intelligence, more executive function is better than less. According to this view, sex differences in effortful control produced male overrepresentation in problem behaviour due to men's greater propensity for failure to act in a controlled manner.

Individuals expressing higher levels of impulsiveness often display deficits over a variety of executive function tests (Dolan and Park, 2002), cognitive tasks requiring response control (Potter and Newhouse, 2004) and cognitive flexibility (Mungas, 1988; Barratt et al., 1997).

However, impulsiveness is not associated with testosterone, as would be expected of a facet of psychoticism (Aluja & Torrubia, 2004; Coccaro et al., 2007; Daitzman & Zuckerman, 1980), and norms for impulsiveness show no sex differences (Eysenck et al., 1985).

Lynam and Miller (2004) examined different facets of psychometrically measured impulsivity and found that lack of premeditation and sensation seeking predicted conduct problems (including fighting), whereas lack of perseverance and urgency did not. Furthermore, scores on the Aggression Questionnaire–Refined (AQ-R) are more strongly correlated with the non-planning impulsiveness subscale of the Barratt
Impulsiveness Scale than with the motor impulsiveness and cognitive impulsiveness subscales (Garcia-Forero et al., 2009).

Synder, et al. (2004) worked on the conjoint influence of child Impulsiveness—Inattention (I/I) and peer relationships on growth trajectories of conduct problems was assessed in a community sample of 267 boys and girls. I/I reliably predicted teacher- and parent-reported conduct problems at kindergarten entry and growth in those problems over the next 2 years for boys and girls. The relation of boys' I/I to conduct problems was mediated, in part, by peer rejection and involvement in coercive exchanges with peers. The relation of girls' I/I to conduct problems was less clearly mediated by peer processes, but peer difficulties had additive effects. The impact of peer relationships on trajectories of conduct problems was apparent to parents as well as to teachers. Although I/I increments risk for early and persisting conduct problems in concert with poor peer relationships, it does so in complex and gender-specific ways.

Andreu and Fabia (2005) investigated the relationships between impulsivity, intelligence and academic failure in a sample of 241 secondary school students who completed Primary mental abilities (PMA) test and impulsivity questionnaires (DII and B15-10, respectively). Result showed an inverse relationship between impulsivity and intelligence, specific to the scales with higher loadings on crystallized intelligence, and a positive relationship between impulsivity and academic failure. The result indicated that impulsivity is not directly related to intelligence and may act as a moderator variable between individual's resources and their achievements.

Keilp et al. (2005) found that performance of executive function, verbal fluency, tasks requiring decision-making against time, reaction time to paired words and paired faces memory tasks, the Go-No Go task, the time estimation task and response bias on the continuous performance task correlated substantially with the self-reported scores on Barratt's Impulsiveness Scale. Performance on the Go-No Go task is the strongest correlate for self-rated impulsiveness whereby decision-making and response organization tasks under pressure of time give stringent tests of the trait.

Impulsivity has been investigated as a predictor of aggressive behaviour and has been suggested as a mediator of the sex difference in direct aggression (Campbell, 2006;
Some forms of impulsivity are more strongly implicated in aggressive behaviour than others. A review by Campbell (2006) suggested that cognitive forms of impulsivity were less likely candidates for explaining sex differences in aggression than more affective forms.

Hung-Yilu, et.al. (2006) examined how personality traits such as sensation-seeking and impulsive decision-making affect Taiwanese college students' intentions to seek online information about sexually transmitted diseases (STDs) and human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS). Five hundred thirty-five ($n = 535$) junior and senior college students in Taiwan were recruited and completed self report questionnaires. Study found that high sensation-seekers were more likely to seek information about STDs and HIV/AIDS on the Internet than low sensation-seekers. Impulsive decision-makers were less likely than rational decision-makers to seek information about STDs and HIV/AIDS on the Internet.

Parren, et.al. (2006) studied on Swiss kindergartners children's and adults (combined) reported that high impulsivity/ inattention were related to sociometric rejection, but not acceptance.

Wilson (2006) found that children who were labeled by their peers as aggressive-rejected were more impulsive than non-aggressive popular children and made more inappropriate attempts at engaging in social interactions with their classmates than non aggressive popular children.

Gregory (2007) focused on impulsivity control, a trait measure of the self control construct, its relationship to self regulated learning and its importance to students academic achievement. Both self control and self regulated learning are important concept of education. Studies have demonstrated that a high level of impulsivity control had a positive effect of academic achievement. Self-control, defined by impulsivity control, affect multiple areas of an individual’s life including education. Individuals who are good at self control are good at most thing they attempt because they will put forth the appropriate effort and ignore distractions.

Komarovskaya, et.al. (2007) investigated the relationships among impulsivity, antisocial and violent behaviour, and personality disorders in 590 female inmates of a
maximum-security female prison. Measures included the Barratt Impulsivity Scale, Prison Violence Inventory, Structured Clinical Interview for DSM-IV Personality Disorders Screening Questionnaire, numbers of institutional infractions recorded in inmate files, and violent versus nonviolent offending. Results showed that impulsivity was associated with personality psychopathology and aggressive and antisocial behaviour. In contrast to findings of studies with male inmates, female violent offenders did not demonstrate higher levels of impulsivity than nonviolent offenders.

Miksza (2007) investigated relationship among impulsivity, achievement goal motivation, and the performance achievement of high school wind players. 60 high school wind players drawn from six school in Indiana and New Jersey. Results showed that impulsiveness, venturesomeness, and mastery approach motivation were significant predictors of performance achievement.

Archer et. al. (2008) described studies assessing the influence of affective personality upon stress, motivation, self-esteem, optimism, depression and anxiety and locus of control in different populations, and the predictive relationships between positive effect, negative effect, self-esteem, intrinsic motivation and depression (Beck's BDI) within and across estimations of cognitive-emotional expressions, as assessed with regression analysis.

Gomes & Livesey (2008) investigated that whether behaviours that reflect impulsivity or require response inhibition are uniquely linked to children's peer relations. Five- and 6-year-old children's impulsivity was assessed using the teached-rated impulsivity scale (TRIS), in addition, peer relations measures were obtained for each child by asking their peers to indicate on a peer rating scale how much they would like to play with them. It was found that children's scores on the TRIS correlated significantly with peer relations measures (sociometric preference, peer acceptance and peer rejection) after controlling for gender, age and intelligence. Children rated by their teachers to be more impulsive had poorer peer relations. The findings indicated that impulsivity is associated with children's poor relations with their peers and that this association is dependent upon the measure of impulsivity used. Whereas the more subjective teacher-ratings of impulsiveness did correlate with peer relations.
Luengo (2008) analysed the relationships between impulsivity and antisocial behaviour in a noninstitutionalized sample, taking into account the multidimensional nature of impulsivity and the diversity of types of antisocial behaviour. Data were obtained in 1989 and 1990 from 1,226 adolescents aged 12-18 yrs as part of a longitudinal study of risk factors for drug abuse and delinquency. The patterns of stability or change of the various dimensions of antisocial behaviour (rule breaking, vandalism, theft, aggression, and drug taking) in relation to impulsivity were investigated. The results supported that self-report measures of impulsivity are closely correlated with antisocial behaviour among adolescents. The longitudinally-oriented analysis of this work also shows that impulsivity is associated with a future increase in antisocial behaviour.

MacDonald (2008) argued that although evolution has shaped dedicated psychological modules (adaptations) to solve recurrent evolutionary problems, the effortful control system can inhibit such automatic evolved responses and thereby reduce impulsivity. MacDonald argued for sex differences in impulsivity based on strong sexual selection for male intrasexual competition, which makes approach tendencies less amenable to override by effortful control: —Males are thus expected to be higher on behavioural approach systems (sensation seeking, impulsivity, reward seeking, aggression) and therefore on average be less prone to control prepotent approach responses.

Ruchsow et.al. (2008) examined healthy subjects without history of DSM-IV Axis I or II psychopathology. Impulsiveness was determined by calculating individual reaction times (as a function of general response speed) in order to split the entire group (n = 26) in a subgroup with a more controlled response style (low impulsiveness [LI] group; n = 13) and a subgroup with a more impulsive response style (high impulsiveness [HI] group; n = 13). Data suggested that there is a broader range of impulsiveness even in healthy subjects which might mask or pronounce between-group differences in clinical studies.

Campbell & Muncer (2009) found that many impulsive actions are harmless. Hugging someone out of happiness, buying a treat on the spur of the moment, or opting for a new dish at a restaurant are hardly dangerous actions, for the most part.
Parachuting, rock-climbing, although risky, but not generally impulsive. They require planning, training, and a measured consideration of the risk.

*Palomo, et.al. (2009)* contrasted symptoms based strategies with existing diagnostic classifications, include brain areas and regional circuitry underlying decision-making and impulsiveness, and motor and learned expressions of explicit and implicit processes. It was observed that linear regression analyses between positive and negative affect, self-esteem, four different types of situational motivation: intrinsic, identified regulation, extrinsic regulation and amotivation, and impulsiveness predicted significant associations between impulsiveness with negative affect and lack of motivation (i.e., amotivation) and internal locus of control, on the one hand, and non-impulsiveness with positive affect, self-esteem, and high motivation.

*Posner & Rothbart (2009)* suggested that although impulsive behaviour in childhood may result from the balance between the two lower-level reactive systems, in adulthood it is likely to be associated with weak or ineffective effortful control. Effortful control is represented in three of their measurement domains: general impulsivity, specific forms of impulsivity, and behavioural measures of impulsivity.

*Barratt (2010)* studied to relate the hypothetical constructs of impulsiveness and anxiety to psychomotor efficiency in a conflict situation. Results suggested that anxiety tends to inhibit impulsiveness in some instances.