Chapter-I

INTRODUCTION

‘The destiny of India is now being shaped in her classrooms. This, we believe, is no more rhetoric. In a world based on science and technology, it is education that determines the level of prosperity, welfare and security of the people.’

The Kothari Education Commission (1964)
In the current scenario, education has a pivotal role to play in the economic and social development of any nation. Bearing in mind the importance of education it is the need of the hour to promote the academic achievement of students, who form the concrete foundation for the country’s progress.

Academic achievement is directly related to students’ growth and development of knowledge in an educational situation where teaching and learning process takes place. Academic achievement is defined as the performance of the students in the subject they study in the school (Pandey, 2008). Academic achievement determines the student’s status in the class. It gives children an opportunity to develop their talents, improve their grades and prepare for the future academic challenges.

Adolescents with high academic achievement are considered to achieve their identity in the society, get good career opportunities, get acceptance from peer, parents and teachers, develop leadership qualities, and enhance their self confidence and self esteem. Whereas, academic failure leads to frustration, stress, inferiority complex, rejection from the loved ones, increased number of suicides, discouragement and ultimately to dropping out (Ekstrom et al., 1986, Steinberg, Blinde and Chan, 1984; Gadwa and Griggs, 1985), higher rates of unemployment, welfare dependency, and criminal behavior (Center for the Study of Social Policy, 1986; Carnegie Council on Adolescent Development, 1989; National Commission on Children, 1991).

Hence, there is a need to give due attention to the factors which are directly or indirectly influencing the academic achievement. This will depend on a number of factors like, student’s interest and attitude towards the subject of study, aptitude, intelligence, achievement motivation, socioeconomic status, locality of institution, sex, physical health etc. (Pandey, 2008).

Determinants of students' performance have been the subject of ongoing debate among educators, academics, and policy makers. There have been many studies that sought to examine this issue and the findings of these studies point out to hard work and discipline, previous schooling, parents’ education, family income and self motivation as factors that can explain differences in students' grades (Nasri
and Ahmed, 2006). For example, Siegfried and Fels (1979) concluded that the student’s aptitude is the most important determinant of his/her learning. In a study of high school students who are in an economics class and want to take another economics course, Beron (1990) found that there is a link between the perceived usefulness of an additional course in economics and the performance of the students in a current economics course. Gender wise, Williams et al (1992) found no evidence to support the hypothesis that significant and consistent gender differences exist in college students' performance on economic exams. Romer (1993) found that class attendance is reflected significantly on the students’ GPA. Anderson and Benjamin (1994) found that the most important factors that affect students' performance in university introductory economics course were the overall achievement level and taking a course in calculus. With regard to gender, they found that male students outperform their female counterpart. Kennedy and Tay (1994) concluded in their survey article that the research on the factors affecting students’ performance in economics points out to student’s aptitude as the most important determinant of learning. Study effort, age of student, and a good match between student’s learning style and instructor’s teaching style all have positive effect on student's performance. Cohn et al (1995) found that memory and note-taking affect learning in the introductory courses in economics. Devadoss and Foltz (1996) studied the effects of previous GPA, class attendance, and financial status on the performance of students of some agriculture economics related courses. They concluded that previous GPA and motivation affect positively the current GPA. They also found that students who support themselves financially are likely to have better performance. Zimmer and Fuller (1996) in their survey article of the factors affecting students' performance in statistics found that statistics anxiety and attitude, and computer experience are linked to students' performance in statistics courses. Ellis et al (1998) in their study on the factors affecting student performance in principles of economics, found that the likelihood of a student making a grade of A or B significantly decreases as the number of absences increases; when the student is a member of fraternity or sorority; and as the number of credit hours carried by the student during the semester increases. On the other hand, the chance of a student making an A or B in the course significantly increases with having taken a calculus course; a higher GPA; and higher SAT scores. Lane and Porch (2002) studied the
factors affecting students' performance on an introductory undergraduate financial accounting course and found that age and students attitude toward accounting have significant effect on students' performance. Karemera (2003) found that students' performance is significantly correlated with satisfaction with academic environment and service received. He also found that the existence of professional development programs and internship opportunities are associated with better academic performance. With regard to background variables, he found a positive effect of high school performance and school achievement while there was no statistical evidence of significant association between family income level and academic performance.

When the investigator looked towards the Indian efforts he observed, no significant relationship between academic achievements of students with their parental relationship (Arora, 1988). It has been explored that personality factor significantly influenced the academic achievement and further it has been established that academic achievement is significantly and positively correlated with intelligence. And the similar study denied any relationship that exists in academic achievement and self concept (Dixit, 1989). Convent schools were found to be better than Saraswati Vidaya Mandir in the development of economic values and they were also better than government and private school in the development of knowledge, economic and aesthetic values (Pandey, 1989). Deb et al. (1990) in their study observed that home environment of the students and planning of schedule was significantly related to their academic achievement. They also found a significant relationship of study habits with academic achievement and also noted that student’s habits and interests also influenced their academic achievements. Devi (1990) revealed that girls had a significantly higher academic achievement than boys and showed a positive correlation in academic achievements with intelligence. Pradhan (1991) depicted that the schools organization climate did not affect the academic achievement of students. No significant correlation was also observed between academic achievement with social, democratic aesthetic, economic, family prestige and health values (Chand, 1992). Harikrishnan (1992) found, girls as the high achiever than the boys. Further he revealed that socioeconomic status was significantly related to academic achievement. Marsh & Kleitman (2005) have found small to moderate negative effect of work on achievement measures such as grades and test scores.
1.1.1. ACADEMIC ACHIEVEMENT:

Achievement in the educational situation has frequently been referred to as scholastic achievement or academic achievement or academic attainment, the term scholastic achievement signifies various aspect of learning such as “ability to learn” (Tilton, 1949), “scholastic aptitude” (Traverse, 1949), “measure of motivation” (Sawrey, 1958) and “creative capacity” (Torrence, 1964).

1.1.1.1. Meaning and Definitions of Academic Achievement

Wikipedia: The Free Encyclopedia (2011) also defines educational or academic achievement as specified level of attainment proficiency in academic work as evaluated by the teacher, by standardized tests or by combination of both. Further Dictionary of Education (2003) defines “Academic achievement means the knowledge attained or skills developed in school subjects, usually determined by test score or by marks assigned by teacher or both.”

Dictionary of Psychology (Chaplin, 1965) defines as educational or academic achievement as specific level of attainment or proficiency in academic work as evaluated by the teachers, by standardized tests or by a combination of both.

According to the Dictionary of Education (Carter, 1959), academic achievement means “The knowledge attained or skills developed in the school subjects, usually determined by test scores or by the marks assigned by teachers or both”.

According to Good (1975) “Achievement means accomplishment or proficiency of performance in a given skill or body of knowledge.”

According to the Random House Dictionary of English Language (Edited by Flexner, 1993) “Academic achievement has been defined as something accomplished by an individual in all school subjects.”

Chamber 20th Century Dictionary (by Thomas, 1903) defines achievements as successful accomplishment of a task or attainment of a desired goal. This variable emphasizes mastery of intellectual, athletic, mechanical artistic skills as well as competence in specialized crafts.

Steinberger (1993) defines “Academic Achievement: is conceptualized as, "that encompasses the student's ability and performance; it is multidimensional; it is
intricately related to human growth and cognitive, emotional, social, and physical development; it reflects the whole child; it is not related to a single instance, but occurs across time and levels, through a student’s life in public school and on to post secondary years and working life”.

Pandey, (2008) defined “Academic achievement as the performance of the students in the subjects they study in the school. It is directly related to students growth and development of knowledge in educational situation where teaching, learning takes place.”

In the common terminology, academic achievement refers to the level of attainment in various subjects as indicated by marks or grade points. It may be the attained ability to perform school subjects. Thus academic achievement refers to marks or grade obtained in subject taught in school after an examination be it written or oral. These marks or grades have been considered the criterion of academic achievement. Academic achievement also means the attained level of students functioning, in school task such as Language, Mathematics, Science etc. as shown b school marks.

Academic achievement is related to the acquisition of principles and generalizations and the capacity to perform efficiently. Assessment of academic performance has been largely confined to the evaluation in terms of information, knowledge and understanding, certain manipulations of objects, symbols and ideas. Academic achievement is employed as a customary criterion to measure the level of knowledge, understanding and acquisition of skill. Yet, in spite of this one is still far from reaching an understanding of the actual process of academic achievement. With the result, current level of understanding the complexities of school achievement, especially at high school stage, falls far short of what is desirable.

In the literal sense, achievement is something that is achieved successfully with the efforts and skills. This is applicable to every spheres of life, individual, institutional, society and the like.

The word “School Achievement” is generally applied to the academic status of the child in different subject as a whole. But we can not limit the school achievement to adjust the academic achievement. Academic achievement is a part of school achievement which includes the achievement of the student in all fields. Academic
achievement is a aspect of behavioral an important aspect to students who are engaged in the process of education and since it depends on its degree of effectiveness for maximum performance.

An important index of academic achievement of a student is his school performance which labels him a high or low performer. All school gives their students marks or grades and these are sources of information about the student. They let the pupil knowledge how well he is doing in comparison with others in his class.

Achievement of an individual depends on intellectual abilities like intelligence, aptitude, imagination, memory, study habit, perceptual power and attention, emotional tendencies of the children, physical fitness, environmental factors like home where he lives, the racial nature and religious background of his family. The social economic and educational status of his parents his neighborhood moral qualities of his associates, the books, magazine he reads, the movies or television that he watches etc. physical facilities qualified and competent teachers, curriculum and equipment comprehensive and continuous evaluation, the effective management and teaching learning strategies are the major determinants of quality of academic achievement by improving the quality of each one of these elements, we can hope to bring about significant improvement in the overall all quality of achievement.

Teacher has always endeavored to measure the achievement of their pupils towards desired education goals and objectives. The realization of the objectives is the touchstone for any system. If the achievement corresponds to the objectives, the system has justified its existence. Achievement test in educational system are designed to asses the educational objectives. Such assessment reveals how far the objectives specified have been achieved in this situation, when the focus is on the achievement of objectives and teacher’s main concern is with the average student to increase the academic achievement of student. The reason behind this is more and more competition in every sphere of life. Parents desire that their children climbs the ladder of performance to as high a level as possible. This desire for a high level of achievements required a lot of pressure on students, teachers and school and in general on the educational system itself. In fact it appears that whole system of educational revolves round the academic achievement of student. As academic achievement is the scale of status of school, so a lot of time and efforts of the
educational institutions are used for helping student to achieve better in scholastic endeavors. Therefore, in school great emphasis is laid on achievement, right from beginning of formal education.

Since the 1960’s students academic performance is being assessed on a regular basis in developed countries. In India, however assessment of learning achievements has only recently begun. Learning can be measured along important dimensions related to the curriculum, either through classroom assessments, examinations, assignments etc. or through standardized achievement tests. Though the goal of all educational programmed of every country is envisaged as maximizing the achievement of students, experience reveals that students do not attain the same level of success. With due recognition to individual differences in ability, interest and aptitude, it is evident that all children are not capable of reaching the same educational standard although all of them are quite capable of being improved upon. Consequently, attention is being increasingly focused by educators upon the causes that underlie variations in achievement. So, it is necessary to take a programmed of quality improvement. In order to chalk out any meaningful program of quality improvement, we shall have to first identify determinants of qualities of academic achievement.

Heads of institution, curriculum planners, educational planner, administrator, teacher and who are involved in the helpings of students to achieve better would like to have knowledge of the extent of the influence, these correlates exert on achievement. Further, a synoptic view of the researches done would be of utmost importance to the educational researcher to enable him to explore greater depth in this, rather important area of academic achievement which in turn help in increasing the success of the adolescent students.

1.1.1.2. Prevalence of Low Academic Achievement

WISCONSIN YOUTH FUTURES Technical Report #3: Factors for Adolescent Academic Achievement (by Lynn Magdol, 2005, Youth Futures Project Assistant, University of Wisconsin-Madison/Extension) identified some factors that were responsible for the low academic performance. These factors were discussed below.
Individual Factors:

An individual student might do poorly in school and subsequently leave prematurely for a variety of reasons. A national survey conducted in the early 1980's, High School and beyond, asked students their own reasons for dropping out. The most common responses were not liking school (reported by a third of dropouts) and getting poor grades (also about a third). Other reasons given were not getting along with teachers and several life events. Males and females differed in their most common reasons. Males were more than twice as likely as females (13 percent vs. 5 percent) to drop out due to expulsion or suspension, employment (27 percent vs. 11 percent), or to contribute to family support (14 percent vs. 8 percent). Females were much more likely than males to drop out due to marriage (31 percent vs. 7 percent) or pregnancy (23 percent vs. 0 percent) (Ekstrom et al, 1986).

- Poor Self-Concept and Low Sense of Control

In one study, a group of low income 6th to 8th graders were asked to rate themselves on general competence and academic ability. Positive rates, both overall and academic, were correlated with better grades and test scores. Self-concept is also better grades and test scores (Sapp, 1990). Self-concept is also moderately related to arithmetic test scores among recent dropouts (Sewell, Palmo & Manni, 1981). Dropouts have poorer self-concepts than their peers who stay in school; however, this relationship is moderate (Sewell et al, 1981) or is restricted to certain aspects of self-concept rather than global self-esteem (Ekstrom et al, 1986).

Dropouts score higher on external locus of control, the feeling that their fate is determined by circumstances that they cannot change (Ekstrom et al, 1986). Dropouts also have less sense of efficacy or responsibility (Sewell et al, 1981).

Because the evidence on self-concept and school achievement is largely correlational, we don't know which came first or which the causal factor is. Perhaps having low self-confidence is the cause of doing poorly in school. On the other hand, poor school performance might cause a negative self-concept, which in turn might precipitate dropping out of school. Recent research supports this latter view, suggesting that improving school performance may enhance self-confidence (Steinberg, 1989; Sundius, Entwisle & Alexander, 1991).
• **Alienation From School**

High school dropouts do not feel a strong sense of belonging to their school (Mahan & Johnson, 1983) and are not very interested in school (Mahan & Johnson, 1983; Ekstrom et al, 1986). Many cite racial prejudice and discrimination as the reason (Center for the Study of Social Policy, 1986). Dropouts report less satisfaction and less effort in school; lower participation in extracurricular activities; more positive attitudes towards work than towards school; and lower aspirations for post-secondary education (Ekstrom et al, 1986). Students who are doing poorly in school are especially vulnerable to missing the developmental benefits of extracurricular activities if they are attending large schools where only a small percentage of the students are involved in such activities (Barker & Gump, 1964).

• **Behavior Problems**

Behavior problems in school, starting in the elementary grades, are associated with low academic achievement. For example, individuals who are highly aggressive in childhood are less likely to graduate from high school or pursue any college training (Lambert, 1988). Children who are hyperactive also have problems in school. By age 17 or 18, they are more likely than other children to be either achieving poorly, attending a special school, or dropped out altogether (Lambert, 1988). In addition, high school dropouts have more problem behaviors in school than those who do not drop out. They report higher rates of skipping classes, absences, lateness, and being disciplined or suspended (Ekstrom et al, 1986). Behavior problems seem more important for some students than others. Behavior problems are more likely to lead to dropping out of high school for those who are male, have low scores on verbal tests, score high on external locus of control, or report a non-supportive home environment (Ekstrom et al, 1986).

Problems with interpersonal relations as early as the elementary grades will cause academic problems in adolescence (Lambert, 1988). Social adjustment problems may be especially significant during the transition to high school during early
adolescence (Mahan & Johnson, 1983; Larson, 1989). Among high school students, being less popular is also associated with dropping out (Ekstrom et al, 1986).

Social skills training in early adolescence may be an effective prevention action for some youth. Larson (1989) describes a training program that emphasized impulse control, self-monitoring, perspective-taking, and problem-solving. Individuals in the treatment group in this study showed less frequent expulsions and an improvement in both academic and behavior ratings on their report cards.

- **Drug and Alcohol Use and Abuse**

  The use of drugs and alcohol by adolescents is negatively related to their academic performance. Not finishing high school is correlated with using marijuana and hard liquor (Lambert, 1988). Marijuana use is associated with lowered motivation, decline in achievement, and dropping out. Average achievers are twice as likely to have used marijuana in the past week (12.9 percent) as high achievers (6.6 percent). Reports of having ever used marijuana are negatively associated with high achievement and time spent on homework; conversely, ever having used marijuana is positively associated with doing poorly in school and number of absences (Rob, Reynolds, & Finlayson, 1990). Since these are correlational relationships, no definite conclusions can be drawn about drug use as a cause or consequence of academic problems: whether marijuana leads to school problems or whether school problems lead to marijuana use remains unclear.

- **Delinquent Behavior**

  Criminal or delinquent behavior is also related to school failure. High school students who had encounters with the police or criminal justice system were more likely to be dropouts than those who had not (Ekstrom et al, 1986).

- **Learning Style**

  In a study comparing dropouts to high school students in alternative and traditional school settings, Gadwa and Griggs (1985) measured three different aspects of learning style: cognitive, effective, and physiological. Their results show significant differences among these three groups in their preferences for how the learning environment is structured. For example, dropouts are less favorably
disposed towards learning situations where they work alone. They are more authority-oriented and prefer more teacher assistance, but resist assistance from other adults. Dropouts also prefer a varied learning environment that includes visual, auditory, tactile and kinesthetic teaching styles, more than other students. Dropouts were also found to be less alert in the morning and more alert in the evening than others in the study.

- Earlier School Problems

Earlier school problems may be at the root of academic failure in high school. Many students, especially minorities, decide to leave school during early adolescence, and a substantial number drop out of school before the end of the 10th grade (Carnegie Council on Adolescent Development, 1989). Being below grade level, especially by more than one year, is correlated with the likelihood of dropping out of school (Mahan & Johnson, 1983; Center for the Study of Social Policy, 1986).

Poor performance in school leads to discouragement and ultimately to dropping out (Ekstrom et al, 1986; Steinberg, Blinde & Chan, 1984; Gadwa & Griggs, 1985).

Special problem-solving skills training for a group of low income minority 6th graders resulted in improved report card grades 40 weeks later (Larson, 1989). Although no long-term follow-up was reported in this study, the results suggest the value of interventions that are early and that target cognitive skills.

i) Family Factors

- Low Socio-Economic-Status:

An adolescent from a family of lower socioeconomic status is more likely to exit from high school before finishing (Ekstrom et al, 1986) and less likely to attend college (Lambert, 1988). According to a recent report by the National Commission on Children (1991), poverty can affect educational outcomes in a variety of ways. Adolescents from poor families are more likely to lack basic academic skills and to have repeated a grade as children; they are at risk for poorer health and nutrition, a factor that could affect their ability to concentrate in the classroom. The stress and lack of social support to parents in poor families may adversely affect parents' support for school success, and thus, children's intellectual development. Poor
families are likely to live in poor school districts with fewer resources to offer their students. Adolescents in poor families are more likely to be employed, and this may be harmful to school achievement if work hours are extremely long.

- **Parental Education:**
  Mother's educational attainment is a significant predictor of high school completion (Ekstrom et al, 1986; Howell & Frese, 1982), and of test scores (National Commission on Children, 1991). The effects of mothers' education and fathers' education as well, are due in part to the influence of education on parental expectations and parenting style (Howell & Frese, 1982).

- **Ethnic Minority Status**
  Minority adolescents have higher dropout rates (Ekstrom et al, 1986). Blacks and Hispanics have lower grades than whites (Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987). Much of the effect of minority status on academic performance may be actually due to the influence of socioeconomic status. Whites' dropout rates are actually higher than those for blacks, after controlling for socioeconomic status (Howell & Frese, 1982). Hispanic students have higher dropout rates than other "language minority" youth, but again, this is largely due to the lower socioeconomic status of many Hispanics (Steinberg et al, 1984).

A number of factors have been suggested to explain the lower academic achievement of minority students, aside from socioeconomic status. Minority students are more likely to live in poor families or in single parent families, their parents are likely to have less education, and they usually attend lower quality schools, all of which are risk factors for school success (National Commission on Children, 1991). They also may face discrimination and prejudice at school, and the value systems of school may conflict with family and ethnic subculture values (Center for the Study of Social Policy, 1986; Fordham & Ogbu, 1986; Fordham, 1988; National Commission on Children, 1991). In the face of high black unemployment rates and widespread discrimination in hiring and promotions, minority students may be realistically pessimistic about the future opportunities that an education can provide them (Fordham & Ogbu, 1986).
Research on minority students, whose first language is not English, shows that they are not below average in cognitive ability, but may be underachieving in school because they are hesitant to speak up in the classroom and participate in discussions (Feldman, Stone, & Renderer, 1990), or because of parent and teacher attitudes (Steinberg et al, 1984).

- **Single Parent and Step-Parent Family**

Family structure affects both behavior problems in school and absences (Dornbusch, Carlsmith, Bushwall, Ritter, Leiderman, Hastorf, & Gross, 1985). Students who experience family disruption or live in single parent families are more apt to be placed in a special education school (Lambert, 1988). Adolescents in single parent and step-family households have lower grades than those in two-parent households (Dornbusch et al, 1987).

Several explanations have been proposed for the relationship between family structure and adolescent achievement in school. Lower income in single parent families is a major factor (McLanahan, 1985; Milne et al, 1986). When asked why they drop out, students cite family stress (Mahan & Johnson, 1983); thus, the stress of family break-up may place students at risk. McLanahan (1985) finds that the effects of stress are greatest during the initial transition to a single parent arrangement and decline over time. The absence of a father has been linked to less parental supervision, another possible link to lower achievement. If the father is not present, the mother is more likely to be employed and thus less available to supervise, suggesting a loss of potential supervision by both father and mother (National Commission on Children, 1991).

- **Maternal Employment**

For younger children, several studies suggest that full-time maternal employment is associated with diminished school achievement, especially among white middle-class boys from two-parent families (Bronfenbrenner & Crouter, 1982; Gold & Andres, 1978; Hoffman, 1979). Replication of these studies of younger children has found that full-time maternal employment during high school is also associated with lower grades (Milne et al, 1986), especially among middle and upper middle class boys. Furthermore, when mothers had worked full-time in preschool, middle class girls and
upper middle class boys and girls reported lower grades in high school (Bogenschneider & Steinberg, in Magdol, 2005).

Consistent with accumulating evidence indicating the primacy of maternal employment during the infancy and preschool years for child outcomes (Belsky & Rovine, 1988; Baydar & Brooks-Gunn, 1991), upper middle class boys whose mothers worked full-time throughout their lives reported lower grades than those whose mother increased work hours over time (Bogenschneider & Steinberg, in press).

- **Low Parental Aspirations and Expectations**

If parents set high standards, children exert more effort and their school achievement is higher (Natriello & McDill, 1986). High expectations from parents earlier during preadolescence have positive effects on adolescents staying in school later (Howell & Frese, 1982). High school dropouts report lower expectations on the part of their mothers (Ekstrom et al, 1986). Furthermore, high school dropouts are likely to have a family history of dropping out (Mahan & Johnson, 1983), suggesting again the influence of family norms or expectations. Students whose parents express positive expectations regarding their child's continuing schooling after high school are more likely to do so; those whose parents do not have such expectations are more likely to end their education at the point of high school graduation (Conklin & Dailey, 1981).

High aspirations may be especially important for adolescents from low socioeconomic backgrounds; parents who have high aspirations may provide a strong influence that enables them to supersede the disadvantages that they face (Davies & Kandel, 1981).

- **Parenting Style**

The negative effects of low socioeconomic status or being in a single parent family on school achievement are due, in large part, to characteristics of parent-child relations in such families; the number of parents may not be as important as the nature of parenting. Parental discipline, control, monitoring, concern, encouragement, and consistency are all aspects of the parent-child relationship that have been linked to academic achievement in adolescence.
The authoritative parenting style, characterized by warmth, interest and concern along with clear rules and limits, has a positive effect on grades; parenting that is permissive or authoritarian has a negative effect on grades (Dornbusch et al, 1987). Permissive parenting can be motivated by either a permissive, liberal orientation or one that is neglectful and disengaged. The neglectful style has the most negative effects on grades, attitudes towards school, and ability (Lamborn, Mounts, Steinberg, & Dornbusch, 1991).

Parents with more education are more likely to be authoritative and less likely to be permissive or authoritarian. Single mothers score higher on permissive parenting than those in two-parent families, and step-parents are more likely to be permissive or authoritarian than parents in 2-parent families (Dornbusch et al, 1987).

Parental involvement and encouragement are important influences on academic success. Discussion and encouragement when children are younger also increase the likelihood of their ultimately graduating from high school (Howell and Frese, 1982). Consistence of parental encouragement through the high school years is positively related to attending college, but less predictive of attendance at a two-year college than a four-year college (Conklin & Dailey, 1981). High school dropouts report less parental monitoring of their activities and less discussion with parents (Ekstrom et al, 1986). Parents of dropouts may express their opposition to dropping out but not take any specific action to help their adolescent stay in school (Mahan & Johnson, 1983).

Parental interest may be shown by the presence of "study aids" such as encyclopedias and dictionaries in the home, also related to the likelihood of staying in school (Ekstrom et al, 1986).

ii) Peer Factors:

• Lack of Friends

Those who are popular as children are more likely to finish high school and more likely to go to college (Lambert, 1988). Dropouts rate themselves as less popular (Ekstrom et al, 1986).

• Friends With School Problems

The friends of high school dropouts have more absences, lower grades, and less positive attitudes towards school; they are less popular and less likely to plan to attend
college (Ekstrom et al, 1986). If dropouts maintain contact with friends who have stayed in school, however, these friends may provide moral support for returning to school (Mahan & Johnson, 1983).

- **Friends With Negative Attitudes**

  Attitudes and aspirations of peers (Marjoribanks, 1985) as well as peers' expectations and standards (Natriello & McDill, 1986) affect individual effort and achievement in school. For many black high school students, achieving in school is in direct conflict with peer acceptance (Fordham & Ogbu, 1986; Fordham, 1988). Although peer influence is considered an important factor in most adolescent behaviors, educational aspirations are one area where parents' influence is more important than peer influence (Davies & Kandel, 1981). Parents are more influential than peers on plans for future schooling, but peers are more influential than parents in the immediate daily aspects of education such as attitudes towards school and effort on homework (Steinberg & Brown, 1989). Furthermore, positive support from parents may offset any negative influence of peers on school performance and supportive peers may similarly provide offsetting effects on negative parental influences (Steinberg & Brown, 1989).

iii) School Factors:

- **Alienated Teachers**

  Effective teachers are those who like their students (Edmonds, 1983, cited in Good & Weinstein, 1986; Center for the Study of Social Policy, 1986), are highly involved with students (National Commission on Children, 1991), encourage participative learning (Edmonds, 1983, cited in Good & Weinstein, 1986), and have high expectations for their students (Edmonds, 1983, cited in Good & Weinstein, 1986; Center for the Study of Social Policy, 1986; Linney & Seidman, 1989; National Commission on Children, 1991). More experience and training does not, in itself, assure effective teaching, but opportunities for staff to periodically upgrade their training appear to be critical (Spady, 1976; Boyer, 1983).
• **Inflexible Curriculum**

A curriculum that is flexible and open to innovations is another characteristic of effective schools (Center for the Study of Social Policy, 1986; National Commission on Children, 1991). Instruction that is structured to suit a variety of learning styles may prevent discouragement and dropping out (Gadwa & Griggs, 1985).

The curriculum should also take into account the differing values and experiences of students from a variety of ethnic and social class backgrounds, in order to prevent student alienation (Center for the Study of Social Policy, 1986; Massachusetts Advocacy Center, 1988). If the school provides an opportunity for participation in decision making, students are more satisfied with school and have higher grades (Epstein, 1983).

• **Lack of Counseling Services For At-Risk Students**

At-risk students may require extra attention, especially at stressful times, from either teachers or counselors (Carnegie Council on Adolescent Development, 1989). When students are close to dropping out of school, counselor availability and information about alternatives could make a difference (Mahan & Johnson, 1983). The high dropout rates of language minority students may be due to the lack of attention from teachers (Steinberg et al, 1984).

**School Transitions**

Changing schools is stressful and may cause either temporary or more long-term problems with academic performance. The transition to junior high school requires the learning of new skills (Larson, 1989). Students who enter junior high school while also facing biological and social changes are at risk of lowered grades and declining participation in school activities (Simmons, Burgeson, Carlton-Ford, & Blyth, 1987). The more complex structure of the high school may cause adjustment problems, leading to academic problems (Mahan & Johnson, 1983; Carnegie Council on Adolescent Development, 1989). An experimental program during the transition into high school which provided extra peer and teacher support to reduce uncertainty resulted in lower rates of absences, higher grades, less decline in self-
concept, and a more positive attitude toward school among participants, compared to a control group (Felner, Ginter, & Primavera, 1982).

Residential mobility may also result in changing schools. The number of moves and school changes experienced by an individual are correlated with dropping out of high school (Mahan & Johnson, 1983; Lambert, 1988) and a lower likelihood of attending college (Lambert, 1988).

- Weak Administrative Support
A strong principal is an important component of effective schools. Leadership and involvement in instruction are key factors (Boyer, 1983; Edmonds, 1983, cited in Good & Weinstein, 1986; National Commission on Children, 1991). A good principal should be supportive of teachers (Boyer, 1983) and should be willing to involve them in decisions and planning (Massachusetts Advocacy Center, 1988). The principal should have enough autonomy from the school district to exercise authority (Boyer, 1983).

- Large School District
The size of a school district influences academic performance; small rural districts and large urban districts have higher dropout rates (Gadwa & Griggs, 1985). A recent study of Wisconsin dropouts reported higher dropout rates in larger school districts and found that size of school district was the most significant predictor of dropout rates (Center for the Study of Social Policy, 1986).

- Large School
A somewhat separate issue from the size of the district is the size of the school itself. Large schools have the advantage of more resources, but they have the disadvantages of being too impersonal and having more disorder or crime. Smaller schools are considered better, especially for at-risk students (Boyer, 1983). In large schools, a smaller subunit, or school-within-a-school program is recommended (Dorman, 1987; Carnegie Council on Adolescent Development, 1989). Low Participation in Extracurricular Activities High school dropouts report lower levels of participation in extracurricular activities (Ekstrom et al, 1986). The benefits of participation are different in large schools and small schools. In small schools, participation is more active and there is more pressure on each individual student to participate. Students in
these schools benefit from the challenges and developmental opportunities of activities. In large schools, a smaller proportion of the students participate in activities and they report a feeling of belonging as the main benefit. Students who feel alienated from the school are especially likely to be left out of extracurricular activities in these larger schools (Barker & Gump, 1964).

- **Negative School Climate**
  The general atmosphere of a school is considered an important factor in students' success. The lack of an orderly classroom environment (Edmonds, 1983, cited in Good & Weinstein, 1986; Linney & Seidman, 1989; National Commission on Children, 1991) and a sense of safety (Edmonds, 1983, cited in Good & Weinstein, 1986) are the major risk factors in a negative school climate.

- **Uninvolved Parents**
  Another factor is parent involvement and interest (Spady, 1976). Parent involvement results in better relations between schools and families (Epstein, 1984). Students see their parents as effective role models who care about them (Carnegie Council on Adolescent Development, 1989). Parent participation in the school may range from classroom visits to more active participation in tutoring, textbook evaluations, and staff evaluations (Irvine, 1988). Improved communication between the school and the family keeps parents informed and provides information for them on how to help their children succeed (Massachusetts Advocacy Center, 1988), resulting in improved family-school relations, student achievement, and attitudes towards school (Carnegie Council on Adolescent Development, 1989).

- **Work Factors**
  Early involvement in work may provide an alternative focus for some students and may lead to dropping out or to lowered aspirations for post-secondary education (Ekstrom et al, 1986; Steinberg, 1989). Ekstrom and her colleagues (1986) found that 27 percent of male dropouts cited employment as the reason for leaving school and 14 percent cited family support obligations.
• Long Work Hours

While part-time work has some developmental benefits for adolescents, employment while still in high school may present problems for those who work excessively long hours. Working long hours may lead to more school absences, less time spent on homework, choice of easier classes, cheating on tests, and lower teacher expectations (Steinberg et al, n.d.; Steinberg, 1989).

iii) Community Factors

• Low Socio-Economic Level

The general socioeconomic level in a community appears to be related to school success. Adolescents in communities with high rates of welfare and unemployment are less interested in school (Nettles, 1990). However, the negative effects of living in a poor community may be mediated by parenting style, and by social relations with persons outside the community via kin and friend networks as well as via church and other organizational memberships (Steinberg, 1988).

Studies that have compared the relative influence of the family and the community have been inconclusive. Some assert that community effects may be largely explained by individual family factors such as parental resources. Looking at school characteristics as indicators of neighborhood characteristics, Mayer & Jencks (1989) find that the average socioeconomic status in the high school does not affect whether a particular student goes to college or not, except in its correlation with the socioeconomic status of the individual's parents. Looking more directly at neighborhood characteristics, they also find that individual test scores explain most of the neighborhood socioeconomic effect. On the other hand, recent preliminary findings by Dornbusch and Ritter (1991) suggest that the average parenting style in a community may outweigh the influence of an individual adolescent's own parents' style on his or her grades.

There is also agreement about the relative impact of community characteristics on youth of different socioeconomic statuses. Dornbusch and Ritter (1991) find that community norms have less impact on parents with less education, while Steinberg (1988) reviews evidence that community support is especially beneficial for adolescents from disadvantaged family backgrounds.
• **Lack of Community Resources**

The amount of funding spent on education by the local government appears to be related to effectiveness of education, but the processes are unclear (Spady, 1976; National Commission on Children, 1991). School districts with more funding have lower dropout rates (Center for the Study of Social Policy, 1986). Inadequate funding for a school district may impair recruitment of high quality teachers as well as maintenance of textbooks and other curriculum materials (National Commission on Children, 1991). Spady's research review (1976) is inconclusive about whether expenditures affect student outcomes because of investments in teachers, materials, administrators, or facilities. Studies in this area have been additionally flawed in not considering the possibility that higher ability students might be drawn disproportionately to high quality school districts confusing selection effects with expenditure effects.

One factor which contributes to the funding ability of a community is the presence of industry, which creates a strong tax base (Spady, 1976). In addition to public funding for education, local business and other organizations also provide community resources such as money, equipment, and expertise (Irvine, 1988). In Milwaukee, a program that obtained computers from local business donations demonstrated a mean reading improvement of 3 grade levels and mean math improvement of 3.9 grade levels after 100 hours of computer-assisted instruction (Mann, 1986). The Boston Compact involved public schools, local businesses, and nearby universities in an attempt to prevent high school students from dropping out. In its first phase, the program reported improvements in test scores and youth employment, but no change in the dropout rate. Efforts were planned for the next phase to focus more on school retention (Hargroves, 1986). In Atlanta, volunteers from the business community have served as mentors in a successful program to promote academic success (Mann, 1986).
1.1.2. EMOTIONAL INTELLIGENCE

The term emotional intelligence has been rooted from the social intelligence, which was first coined by EL Thorndike in 1920 (in Dash and Behera, 2004). “Emotional Quotient” (EQ) is used interchangeable with ‘Emotional Intelligence’. In the first time Salovey and Mayer (1990) conceptualized the term emotional intelligence that consisted of three different categories of adaptive abilities. Firstly, it is appraisal and expression of the self as well as others. In the self there are verbal and non-verbal components, in the other there are non-verbal perception and empathy. Secondary, there is a regulation of emotion in the self and others. Thirdly, it is utilization of emotion that includes flexible planning, creative thinking, redirected attention and motivation. Goleman (1995) then subsumed this definition with a lot of personality characteristics, which he believed would contribute positively to success in any domain of life. Further, Mayer and Salovey (1997) revised their own definition stressing the cognitive components of emotional intelligence and described ‘Emotional Intelligence involves the ability to perceive accurately, appraise and express emotions; the ability to access and/or generate feelings. When they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability
to regulate emotions to promote emotional and intellectual growth.” This definition was referred to the mental abilities of the organism. But this definition is hardly comprehensive for the present situation. A more formal academic definition refers to emotional awareness and emotional management skills, which provide the ability to balance emotion and reason so as to maximize long-term happiness. In general we can define emotional intelligence as the accumulation of all cognitive, non-cognitive and non-physical capabilities, competencies and skills a person has, that help him/her to deal with the demands and pressures of every day life (Dash and Behera, 2004).

In the light of above discussion it can be defined that emotional intelligence is the ability to understand emotions and their causes, the capability to effectively regulate these emotions in oneself and in others and most importantly being able to use the emotions as a source of information for problem solving, being creative and dealing with social situations. In simple terms we can say that EQ can be defined as knowing what feels good, what feels bad and how to get from bad to good.

1.1.2.1 Characteristics of Emotional Intelligence:

- It is a non-cognitive and non-physical capacity of the organism.
- It is an internal or psychological process, which motivates the organism to perform its activities properly.
- It is nurturable.
- It energizes the organism to accomplish the required tasks.
- Level of emotional intelligence is neither genetically fixed nor does it develop only in early childhood and develop through out life.

1.1.2.2. Components of Emotional Intelligence

According to Salovey and Mayer (1990) Emotional Intelligence comprises components like self-awareness, managing emotion, motivating oneself, empathy and handing relationships.

- Self-awareness: Observing own –self and recognize of feeling as it happens.
  Managing emotions: Handing feelings, so that they are appropriate to realize
what is behind a feeling, finding ways to handle fears and anxiety, anger and sadness.

- **Motivating Oneself:** Channeling emotions in the service of a goal; emotional self-controls carrying gratification and stifling impulses.

- **Empathy:** Sensitivity to other’s feelings and concerns and taking their perspective, appreciating the differences in how people feel about things.

- **Handling Relationship:** Managing emotions in others, social competence and social skills.

Wagner and Sternberg (in *Dash and Behera, 2004*) classified it into three categories as follows:

- **Managing Self:** This refers to the ability in administering or managing self in every day to get the highest results such as sequencing of activities; self-instigation and inducement to achievement; build up good self-inducement; be daring for ventures; not to be discouraged; know the limit of one’s own potentiality.

- **Managing Others:** This is the skill in managing the subordinates, and the social relations; the ability in getting along with others; the ability to entrust would accord the aptitude of the person.

- **Managing Career:** This is the matter of building up a good impact to the community, the organization and the country, building up one’s own fame and reputation. A person should arrange his own needs to be in consistency with the organization’s point of interest. He should also influence associated persons to give their concurrence.

We can combine all the components given by *Salovey and Mayer (1990)* and Wagner and Sternberg on emotional intelligence. The combination of all the components are diagrammatically presented in the following Figure.

**Fig. No.1.1.2.2**  
Components of EMI
### 1.1.2.3. Differences between Emotional Intelligence (EQ) and General Intelligence (IQ)

*Dash and Behera (2004)* in their study shown following differences that lies between *Emotional Intelligence (EQ)* and *General Intelligence (IQ)*:

- Intelligence is the aggregate or global capacity of an individual to act purposefully, to think rationally and to deal effectively with his environment. Where as Emotional intelligence is the capacity or ability to understand ones own emotions, the emotions of other and act appropriately based on these emotions.

- IQ refers to the cognitive aspect of the organism. The measures the intelligence quotient, there is a specific mathematical formula, i.e. MA/CA x 100. But there is no specific mathematical formula like general intelligence to find out the level of emotional intelligence till today, since EQ delineates to the non-cognitive and non-physical aspects of the organism.

- Intelligence refers to the cognitive abilities of the organism. However, emotional intelligence refers to the non-cognitive and non-physical capacities of the organism. So, emotional intelligence is nurturable and general intelligence is inherited and not nurturable.
Level of general intelligence is genetically fixed, where as emotional intelligence is neither genetically fixed nor does it develops only in early childhood and develop throughout life.

Our past research evidences suggest that “Emotional intelligence can be more powerful than intelligent quotient. When IQ defines how smart a person is? In the mean time emotional intelligence defines how well a person use what smarts he is?

According to Goleman (1995), IQ accounts for only about 20 per cent of a persons success in life. The remaining 80 per cent depend largely on persons emotional intelligence i.e. EQ.

After all we can say, why emotional intelligence is significant for every sphere of life in general, and teaching-learning situation in particular? In general, it is necessary for the leaders, supervisors, mangers, colleagues and others in the workplace, to understand their emotions and their workers to get the quality productivity. In particular parents, teachers, supervisor, administrators, head of the institutions and others in the teaching-learning situations to know and understand their emotions and also their children’s for getting outstanding results in their respective areas. The following points help us to understand the significance of EQ in the present society.

1.1.2.4. Role of Emotional Intelligence in Adolescent’s Life:

Keeping the characteristics of EQ and various researches and literatures in the field of emotional intelligence the importance is summarized as under:

- Emotional intelligence plays a pivotal role in designing the required personality; build up the emotional maturity suitable to the age; build up the ability in his self-adaptation for solving the stress problems and the pressure of life in the competing status of an individual.

- The enhancement of the harmonious personality of the individual depends to a large extent on his/her emotional intelligence It enables a man to achieve highest pinnacle and deepest reach in his search for self-fulfillment as well as others fulfillment.

- Emotional intelligence re-enforces the concomitant drive to increase individualism. It enables to express ones feeling and emotion at the
appropriate occasion, with the understanding of the feeling of self and others. A person with emotional intelligence knows how to smile? He knows how to listen patiently to other people’s problem? He will not be alienated from the people or form his own life.

- Emotional Intelligence gives the introspective insight before getting to know others. The knowing of oneself and of others would induce interaction among themselves; where by the potentiality can be used in full and the family life would be happy through the understanding of each other.

- Emotional Intelligence enhances the talent of artful leader in utilizing people and in capturing their hearts. It gives chance for the administrator to study and develop the staff. It can influence people to accomplish required task. Encouraging individual competition rather than team sprit.

- Attributing quantitative values to qualitative phenomena that is evident from the all-pervasive marks system which rapidly becomes the dominant goal of pupils. Therefore, emotional intelligence is a very important aspect on which depends the future career of the children.

- Emotional intelligence can enable teachers to resolve past issues and both external as well as internal conflicts help them to attain emotional power and accomplish their goals at all levels physical, mental, spiritual and emotional; and also improve psychological abilities such as: memory, clarity of thinking and decision-making.

- It is believed that learning difficulty as well as various problems at work place have their origin in poorly developed emotional awareness in early childhood; In this state emotional intelligence enable the human beings to respond to the right degree, at the right time, for the right purpose and in the right way to a verity of environmental situations.

- Emotional intelligence is a primary factor in healthy ageing permitting the human being to live long as well and it is positively impacts to the individual ability to sustain both mental and physical health. Emotional intelligence also enables to assume responsibility for an individual feeling by saying “I feel” instead of ‘I should not have.’
• Emotional intelligence helps in stimulating motivation, improving communication, reducing stress and enhancing decision-making power of teachers, administrators, students and also parents.

• Emotional intelligence also helps to cope with stressful situations. Stress management, therefore largely depends upon striking an emotional balance between a potential stress condition and reaction to it.

Researches (Gill, 2003; Ghosh, 2003) have described that Children with high EQ are more confident, are better learners, have higher self-esteem, have few behavioral problems, are more optimistic and happier, handle their emotions better and even to be successful entrepreneur one needs to have a high emotional intelligence.

Further, the study of Abraham (1999) revealed that EQ as theorized to have a positive effect on organizational outcomes of work group-cohesion, congruence between self and supervisor appraisals of performance, employee performance, organizational commitment and organizational citizenship. It may also prevent emotional dissonance ethical role conflict and job insecurity from effecting organizational commitment. The most beneficial effects of emotional intelligence may occur in environment in which there is a high degree of job control.

Emotional intelligence (EI) has recently attracted a lot of interest in the academic literature (Charbonneau & Nicol, 2002; Ciarrochi, Deane, & Anderson, 2002; Mayer, Salovey, & Caruso, 2000; Palmer, Donaldson, & Stough, 2002; Petrides & Furnham, 2003; Roberts, Ziedner, & Matthews, 2001; Saklofske, Austin, & Minski, 2003). The distal roots of EI can be traced back to the concept of ‘social intelligence,’ coined by E.L. Thorndike (1920) to refer to the ability to understand and manage people and to act wisely in human relations. Its proximal roots lie in the work of Gardner (1983) and, more specifically, in his concepts of intrapersonal and interpersonal intelligence. EI as a term has been present in the literature for a relatively long time (Greenspan, 1989; Leuner, 1966), although it was not until 1990 that the construct was introduced in its present form (Salovery & Mayer, 1990). EI was propelled into prominence by Goleman’s (1995) best-selling book and a subsequent lead article in TIME magazine (Gibbs, 1995). Thereafter, articles on EI began to appear with increasing frequency across a wide range of academic and popular outlets. Nevertheless, the quantity of empirical work carried out on the
construct, including the development of appropriate measures, seems to bear an inverse relationship to the interest it has attracted in the scientific and popular literature.

In today’s America, emotional intelligence is emerging with a huge impact in our society. It is a crucial factor in the workplace, in academic performance at school, and at home (Goleman, 1998). Many people face many challenges in everyday life, so based on Goleman’s research (1998), in order to be a well-rounded functioning individual, a person must possess skills to excel in life, such as to plan, motivate, manage feelings, and handle relationships. By approaching life’s tasks armed with emotional intelligence skills an individual should be able to rise above obstacles and adapt to daily encounters appropriately (Goleman, 1998).

In the learning environment, many educators are becoming aware that students’ emotional intelligence should be incorporated and embraced in the classroom (Ashkanasy & Dasborough, 2003). When a student’s emotional and social skills are addressed, academic achievement of the student increases and interpersonal relationship improves (Goleman, 1995). In the workplace, there is a great demand for individuals to perform effectively both emotionally and cognitively (Goleman, 1998). Based on Goleman’s (1995) emotional intelligence concept, an individual must be able to work effectively in a team environment. An individual must also be able to manage emotions at work and interact successfully with the public to produce positive outcomes on the job.

Parents play a major role in developing emotional skills in children (Kolb & Hanley-Maxwell, 2003). Parents communicate information to their children at birth. They signal messages to children by touching, feeling, and speaking. They provide a support system during emotional times in their children’s lives (Honig, 2002). Parents also help building self-esteem, self-control, self-awareness, and confidence. As parents and children work together to develop emotional intelligence skills, the child’s ability to make good, sound and healthy decisions improves, communication skills are also enhanced, and children feel empowered to lead productive lives (Kolb & Hanley-Maxwell, 2003). Everyone needs emotional intelligence to make it through the emotional challenges we face in life. The ability to manage emotional intelligence
effectively is important for success in school, home, workplace, and most importantly in life (Goleman, 1995).

Learning styles and emotional intelligences have been studied frequently as separate research topics (Benson, 2005; BeShears, 2004; Boyd, 2004; Briody, 2005; Knoll, 2006; Leavitt, 2004; Paul-Odouard, 2006; Phillips, 2005; Rivera & Beatriz, 2004; Scott, 2004; Smith, 2006, Spector, 2005; Wells, 2004; Yahr, 2005; Yancey-Bragg 2006). However, there is a lack of research involving both learning styles and emotional intelligence and the effects on adolescents learner. Emotional intelligence is a relatively new intelligence construct (Salovey & Mayer, 1990). The limited number of studies in these areas indicates the need for further research in understanding the correlation and relationship of learning styles and emotional intelligence on academic achievement.

1.1.3. STYLES OF LEARNING AND THINKING

Many factors influence student’s academic achievement – such factors include (but are not limited to) student’s learning and thinking style preferences, their interest in the material under study, and the learning environment. A student’s learning and thinking style preference refers to the way he respond to stimuli in a learning context, and to their characteristic way of acquiring and using information. These learning styles recognize that individuals learn in different ways and thus the students in any course will place a variety of different interpretations onto their lessons (Bailey and Garratt 2002).

Meaning and Definitions of Learning Style:

Learning styles are “the ways individual learners react to the overall learning environment” (James & Gardner, 1995, p. 19).

Learning styles are “self-consistent, enduring individual differences in cognitive organization and functioning” (Ausubel, Novak, & Hanesian, 1978, p. 203)

Learning styles are “distinctive behaviors which serve as indicators of how a person learns from and adapts to his environment. It also gives a clue of as to how a person’s mind operates” (Gregorc, 1979, p. 234)
Learning styles are “the way each learner begins to concentrate on, process, and retain new and difficult information” (Dunn & Dunn, 1993, p. 2).

Learning styles are “preferences that students have for thinking, relating to others, and for various classroom environments and experiences” (Grasha, 1990, p. 106).

Learning styles are “a consistent way of functioning that reflects the underlying causes of learning behavior” (Keefe, 1987, p. 5).

Learning styles differ among students. Some of the ways learning styles between individuals can differ are amongst achievement levels, gender, age, and culture. Individuals’ achievement levels can be high versus low academic achievement. High and low achievers are not likely to perform well with the same methods of learning (Dunn & Dunn, 1999). Differences in gender also affect learning styles. Males and females learn differently from each other. Males tend to be more kinesthetic and tactual, and if they have a third modality strength, it is often visual. Males also need more mobility in a more informal environment than females (Dunn & Griggs, 1995). They are more non-conforming and peer motivated than females. Females tend to be relatively conforming and either self-, parent-, or teacher-motivated (Dunn & Griggs, 1995). Females, more than males, tend to be auditory, authority-oriented, and better able to sit passively in conventional classroom desks and chairs. Females also tend to need significantly more quietness while learning (Pizzo, Dunn, & Dunn, 1990), be more self-motivated, and conform more than males (Marcus, 1977).

Learning styles may change as individuals grow older (Dunn & Griggs, 1995). Some individuals change uniquely and then some do not change at all as they get older. Individuals’ sociological, emotional, and physiological preferences change as a person gets older. Sociological preferences could be whether an individual chooses to learn alone or with a group. Emotional preferences can include motivation which fluctuates from day to day, class to class, and teacher to teacher. If a student is interested in a topic and the presenter’s teaching style matches the student’s learning style, then the student’s motivation will be greater. Sound preferences, temperature preferences, and seating preferences also change as individuals get older (Dunn & Griggs, 1995).

Emotional preferences also include the need for breaks for interaction or intake versus the need for persistence. Older adults may require less structure. Physiological
preferences can include tactual learning, kinesthetic learning, and/or visual learning. It can also include time preferences, length of time preferences, and mobility preferences. There also is diversity in learning styles among different cultures. There were differences greater within each cultural group than between cultural groups. With that in mind, teachers cannot approach students with a cultural mind set. Instead the learning styles strengths of each student must be assessed and intervention must be designed that are compatible with these preferences (Dunn & Griggs, 2000).

1.1.3.1. Learning Styles Models

Three types of learning style models that can be used to test a person’s learning style are instructional preference models, information-processing models, and personality models. Instructional models, also known as social interaction models, examine the attitudes, habits, and strategies of learners. These models also examine how people engage with their peers when they learn. Information-processing models observe the way a person remembers information, senses, solves problem, and thinks. Personality models study the way a person reacts and feels about different situations.

1.1.3.2. Hemisphericity of Mind:

Hemisphericity is the cerebral dominance of an individual in retaining and processing modes of information in his own style of learning and thinking. (Venkataraman, 1989). Researchers conducted during the last two decades have shown that the human left cerebral hemisphere is to be specialized for primarily verbal, analytical, abstract,
temporal and digital operations (Bogen, 1969, Gazzaniga, 1970, Ornstein 1972). The same investigations revealed that the right cerebral hemisphere is to be specialized for well lateralized and it is established early in life (Kinsbourne, 1975) barring special intervention or insult, continue essentially unaltered through out the normal life span (Zelinski and Marsh, 1976). For identifying the hemisphere dominance, the ways in which and the levels at which the information is being processed by the individual are to be studied. Tools have been developed to study the “Style” of Learning and thinking and hence it would be possible to infer the dominance of an individual.

1.1.3.3. Split-Brain Experiments

Roger Sperry (who won the Nobel Prize in 1981) and Michael Gazzaniga are two neuroscientists who studied patients who had surgery to cut the corpus callosum. These studies are called "Split-Brain Experiments". After surgery, these people appeared quite "normal" - they could walk, read, talk, play sports and do all the everyday things they did before surgery. Only after careful experiments that isolated information from reaching one hemisphere, could the real effects of the surgery be determined. macalester.edu

Dr. Sperry used a tachistoscope to present visual information to one hemisphere or the other. The tachistoscope requires people to focus on a point in the center of their visual field. Because each half of the visual field projects to the opposite site of the brain (crossing in the optic chiasm), it is possible to project a picture to either the right hemisphere OR the left hemisphere.

So, say a "typical" (language in the LEFT hemisphere) split-brain patient is sitting down, looking straight ahead and is focusing
on a dot in the middle of a screen. Then a picture of a spoon is flashed to the right of the dot. The visual information about the spoon crosses in the optic chiasm and ends up in the LEFT HEMISPHERE. When the person is asked what the picture was, the person has no problem identifying the spoon and says "Spoon." However, if the spoon had been flashed to the left of the dot (see the picture), then the visual information would have traveled to the RIGHT HEMISPHERE. Now if the person is asked what the picture was, the person will say that nothing was seen!! But, when this same person is asked to pick out an object using only the LEFT hand, this person will correctly pick out the spoon. This is because touch information from the left hand crosses over to the right hemisphere - the side that "saw" the spoon. However, if the person is again asked what the object is, even when it is in the person's hand, the person will NOT be able to say what it is because the right hemisphere cannot "talk." So, the right hemisphere is not stupid, it just has little ability for language - it is "non-verbal." http://faculty.washington.edu/chudler/split.html

Another type of experiment performed with split brain patients uses chimeric figures, like this one to the right. In this figure, the face on the left is a woman and the face on the right is a man. Therefore, if the patient focuses on the dot in the middle of the forehead, the visual information about the woman's face will go to the right cerebral hemisphere and information about the man's face will go to the left hemisphere. When a split brain patient is asked to point to a whole, normal picture of the face that was just seen, the patient will usually pick out the woman's picture (remember, the information about the woman's face went to the RIGHT cerebral hemisphere). However, if the patient is required to say whether the picture was a man or a woman, the patient will SAY that the picture was of a man. Therefore, depending on what the patient is required to do, either the right or left hemisphere will dominate. In this case, when speech is not required, the right hemisphere will dominate for recognition of faces (http://faculty.washington.edu/chudler/split.html).
Felder (1993) reported that alignment between student’s learning styles and an instructor’s teaching style leads to better recall and understanding as well as to more positive post-course attitudes. Since learning style preferences vary from student to student, the most effective mode of instruction will also vary. Furthermore, it has been reported that teaching is most effective when it caters for a range of learning styles, because occasionally having to learn in a less preferred style helps to broaden students’ range of skills (Felder and Dietz 2002). If any consideration is to be given to accommodating students’ learning and thinking style preferences when considering the design to instructional or assessment materials, then it is necessary to know firstly, whether the academic performance of students is dependent upon their preferred learning and thinking style, and secondly the distribution of learning style preferences within a student cohort must be known.

The mind is uniquely and authentically crafted. Human attributes are designed individually and collectively to encompass divergent degrees of learning and processing information. The ideology of leaning styles was adapted to incorporate multiple ways people respond, think, see, hear, touch, rationalize, and formulate knowledge or learning (Dunn & Dunn, 1993). Learning styles have gained prime importance in our society. For many years, research has paved a path on the subject of learning styles by experts, educators, psychologists, sociologists, universities, public school, private schools, doctors, and lawyers (Bloom, 1956; Dunn & Dunn, 1993; Gregorc, 1982; Jung, 1971; Kolb, 1985; Schmeck, 1988). By using evidence from learning styles research, learner’s needs are being met, there is an abundance of literature on this subject readily available, educators are better trained, and numerous strategies and techniques are incorporated in classroom instruction (Benson, 2005; Bloom, 1956; Dunn & Dunn, 1993; Gregorc, 1982a; Jung, 1971; Kolb, 1985; Leavitt, 2004; Lindsay, 2006; Miles, 2004; Schmeck, 1988; Smith, 2006; Yahr, 2005).

Once an individual’s learning style has been identified using assessment tools, there is a greater appreciation, deeper insight, and a better understanding by professionals of the numerous ways individuals learn. Meticulously cultivating and nurturing an individual’s style of learning and incorporating an array of methods and learning devices in learning activities, equips the learner with tools to function effectively in
the school environment and satisfies intellectual and emotional needs (Honigsfeld & Dunn, 2006). An awareness of learning preferences and an understanding of individual learning styles can help educators develop instruction using multiple resources. The learners should also have knowledge of their learning styles or individual preferences of learning, so that optimum learning will occur and everyone who is involved in the learning process can feel successful (Honigsfeld & Dunn, 2006).

Diversity is a key ingredient in the learning environment. Technology is a method of teaching used by educators to engage students in rich learning experience and provide creative opportunities for learners to exercise a multitude of learning styles. Colleges, universities and instructors work cooperatively to design web-based courses to encompass students’ learning styles. By using online web-based course, several methods of instruction can be used and students can participate identifying coursework according to the design that best suits their learning style and preference (White & Bridwell, 2004).

1.2. NEED OF THE STUDY

The present study by the investigator is being taken up with a view in mind that, the good learning and thinking styles and high emotional intelligence helps the students for achieving better academic achievement. The investigator is wide awoken of the fact that this study will help the students in choosing good learning and thinking styles and in understanding their emotional intelligence and getting or achieving maximum academic achievement.

Viewing the related literature on emotional intelligence and learning styles, one can easily understand the importance of these variables on academic achievement. These variables are deeply involved in almost every aspect of adolescent’s life including academic achievement. According to Goleman (1995) “while, general intelligence contributes 20% of success in life, emotional intelligence contributes 80% for the same”. It has found that emotional intelligence have significantly associated with academic achievement (Patil, 2006; Parker, 2005; Manley, 2009; Ogundokun and Adeyemo, 2010; Sood and Anand, 2011; Jadhav and Patil, 2010).
Parents and teachers are able to perceive the children and their natural tendencies of how they think, act and learn in different ways and in different situations. For example, one child may welcome structure in learning while another may welcome new ways of doing things, and the rest may have fear for learning. One child may perform tasks in an orderly and systematic pattern and another may perform tasks in an unsystematic pattern. This is due to individual differences in their style of learning and thinking. In the academic institutions teaching processes are mismatched. Teaching and thinking styles of the teacher and learning and thinking style of the students differ because learning differences are not tied up to the understanding and thinking ability of the students. Many educators are still perplexed about the styles of students in learning and thinking process, what effect these styles have on children’s performance in schools, and why attention should be given to children’s performance to assess their levels of ability. (Venkatraman, 1993)

The styles of learning and thinking have significant effects on academic achievement of adolescents (Malathi & Malini, 2006; Grigorenko & Sternberg, 1997; Zhang & Sternberg, 1998 and Zhang, 2002; Mishra, 2000; Mohansundaram & Kumar, 2000; Garg and Gakhar, 2009).

The purpose of this study is also to examine the relationship between learning and thinking styles and emotional intelligence among adolescents’ learners. This will help teachers and adolescents’ learners better understand these findings and use these findings to enhance classroom learning. Understanding one’s learning and thinking styles can help the learner improve achievement in class (Honigsfeld & Dunn, 2006), but understanding how learning and thinking styles and emotional intelligence together with academic achievement can open new doors to an adolescent learning skills.

1.3. STATEMENT OF THE PROBLEM:

“Academic Achievement of Adolescents in relation to their Emotional Intelligence, Styles of Learning and Thinking”
1.4. OPERATIONAL DEFINITIONS OF TERMS USED:

- **Academic Achievement:**
  Academic achievement refers to the academic performance of the adolescents measured in terms of total marks obtained by the subject in the annual examination of 10th class.

- **Emotional Intelligence**
  Emotional intelligence is the abilities to understand emotions and their causes, the capability to effectively regulate these emotions in one self and others and being able to use the emotions as a source of information for problem solving, being creative and dealing with social situations.

- **Styles of Learning and thinking**
  Style of learning and thinking indicate the hemisphericity preferences of the brain area left cerebral hemisphere is to be specialized for primarily verbal, analytical, temporal and digital operations and right cerebral hemisphere is to be specialized for primarily non-verbal holistic, concrete, creative, analogy and aesthetic functions.

- **Adolescents**
  Adolescence (from Latin: *adolescere* meaning "to grow up") is a transitional stage of physical and mental human development generally occurring between puberty and legal adulthood (age of majority), but largely characterized as beginning and ending with the teenage stage. An adolescent is a person between the ages of 13 and 19.

1.5. OBJECTIVES OF THE STUDY:

- **Objective O1-** To find out the difference between Right Hemisphere and Left Hemisphere preferred adolescents on Academic Achievement.

- **Objective O2-** To find out the difference between High Emotional Intelligent and Low Emotional Intelligent adolescents on Academic Achievement.

- **Objective O3-** To find out the difference between Right Hemisphere preferred High Emotional Intelligent and Right Hemisphere preferred Low Emotional Intelligent adolescents on Academic Achievement.
Objective $O_4$ - To find out the difference between Left Hemisphere preferred High Emotional Intelligent and Left Hemisphere preferred Low Emotional Intelligent adolescents on Academic Achievement.

Objective $O_5$ - To find out the difference between Right Hemisphere preferred High Emotional Intelligent and Left Hemisphere preferred High Emotional Intelligent adolescents on Academic Achievement.

Objective $O_6$ - To find out the difference between Right Hemispheres preferred Low Emotional Intelligent and Left Hemisphere preferred Low Emotional Intelligent adolescents on Academic Achievement.

Objective $O_7$ - To find out the difference between Right Hemisphere preferred Male and Right Hemisphere preferred Female adolescents on Academic Achievement.

Objective $O_8$ - To find out the difference between Left Hemisphere preferred Male and Left Hemisphere preferred Female adolescents on Academic Achievement.

Objective $O_9$ - To find out the difference between High Emotional Intelligent Male and High Emotional Intelligent Female adolescents on Academic Achievement.

Objective $O_{10}$ - To find out the difference between Low Emotional Intelligent Male and Low Emotional Intelligent Female adolescents on Academic Achievement.

Objective $O_{11}$ - To find out the difference between Right Hemisphere preferred Urban and Right Hemisphere preferred Rural adolescents on Academic Achievement.

Objective $O_{12}$ - To find out the difference between Left Hemisphere preferred Urban and Left Hemisphere preferred Rural adolescents on Academic Achievement.

Objective $O_{13}$ - To find out the difference between High Emotional Intelligent Urban and High Emotional Intelligent Rural adolescents on Academic Achievement.

Objective $O_{14}$ - To find out the difference between Low Emotional Intelligent Urban and Low Emotional Intelligent Rural adolescents on Academic Achievement.

Objective $O_{15}$ - To find out the difference between Right Hemisphere preferred Govt. and Private School adolescents on Academic Achievement.

Objective $O_{16}$ - To find out the difference between Left Hemisphere preferred Govt. and Private School adolescents on Academic Achievement.
**Objective O₁⁷** - To find out the difference between *High Emotional Intelligent Govt.* and *Private School* adolescents on *Academic Achievement*.

**Objective O₁⁸** - To find out the difference between *Low Emotional Intelligent Govt.* and *Private School* adolescents on *Academic Achievement*.

**Objective O₁⁹** - To find out the difference between *Right Hemisphere* preferred *Arts* and *Science* adolescents on *Academic Achievement*.

**Objective O₂⁰** - To find out the difference between *Left Hemisphere* preferred *Arts* and *Science* adolescents on *Academic Achievement*.

**Objective O₂¹** - To find out the difference between *High Emotional Intelligent Arts* and *Science* adolescents on *Academic Achievement*.

**Objective O₂²** - To find out the difference between *Low Emotional Intelligent Arts* and *Science* adolescents on *Academic Achievement*.

1.6. **HYPOTHESES OF THE STUDY:**

**Hypothesis H₁** - There is no significant difference between *Right Hemisphere* and *Left Hemisphere* preferred adolescents on *Academic Achievement*.

**Hypothesis H₂** - There is no significant difference between *High Emotional Intelligent* and *Low Emotional Intelligent* adolescents on *Academic Achievement*.

**Hypothesis H₃** - There is no significant difference between *Right Hemisphere* preferred *High Emotional Intelligent* and *Right Hemisphere* preferred *Low Emotional Intelligent* adolescents on *Academic Achievement*.

**Hypotheses H₄** - There is no significant difference between *Left Hemisphere preferred High Emotional Intelligent* and *Left Hemisphere preferred Low Emotional Intelligent* adolescents on *Academic Achievement*.

**Hypothesis H₅** - There is no significant difference between *Right Hemisphere* preferred *High Emotional Intelligent* and *Left Hemisphere* preferred *High Emotional Intelligent* adolescents on *Academic Achievement*.

**Hypothesis H₆** - There is no significant difference between *Right Hemispheres preferred Low Emotional Intelligent* and *Left Hemisphere preferred Low Emotional Intelligent* adolescents on *Academic Achievement*.

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Hypothesis $H_7$ - There is no significant difference between Right Hemisphere preferred Male and Right Hemisphere preferred Female adolescents on their Academic Achievement.

Hypothesis $H_8$ - There is no significant difference between Left Hemisphere preferred Male and Left Hemisphere preferred Female adolescents on Academic Achievement.

Hypothesis $H_9$ - There is no significant difference between High Emotional Intelligent Male and High Emotional Intelligent Female adolescents on Academic Achievement.

Hypothesis $H_{10}$ - There is no significant difference between Low Emotional Intelligent Male and Low Emotional Intelligent Female adolescents on Academic Achievement.

Hypothesis $H_{11}$ - There is no significant difference between Right Hemisphere preferred Urban and Right Hemisphere preferred Rural adolescents on Academic Achievement.

Hypothesis $H_{12}$ - There is no significant difference between Left Hemisphere preferred Urban and Left Hemisphere preferred Rural adolescents on Academic Achievement.

Hypothesis $H_{13}$ - There is no significant difference between High Emotional Intelligent Urban and High Emotional Intelligent Rural adolescents on Academic Achievement.

Hypothesis $H_{14}$ - There is no significant difference between Low Emotional Intelligent Urban and low Emotional Intelligent Rural adolescents on Academic Achievement.

Hypothesis $H_{15}$ - There is no significant difference between Right Hemisphere preferred Govt. and Private School adolescents on Academic Achievement.

Hypothesis $H_{16}$ - There is no significant difference between Left Hemisphere preferred Govt. and Private School adolescents on Academic Achievement.

Hypothesis $H_{17}$ - There is no significant difference between High Emotional Intelligent Govt. and Private School adolescents on Academic Achievement.

Hypothesis $H_{18}$ - There is no significant difference between Low Emotional Intelligent Govt. and Private School adolescents on Academic Achievement.
Hypothesis $H_{19}$ - There is no significant difference between Right Hemisphere preferred Arts and Science adolescents on Academic Achievement.

Hypothesis $H_{20}$ - There is no significant difference between Left Hemisphere preferred Arts and Science adolescents on Academic Achievement.

Hypothesis $H_{21}$ - There is no significant difference between High Emotional Intelligent Arts and Science adolescents on Academic Achievement.

Hypothesis $H_{22}$ - There is no significant difference between Low Emotional Intelligent Arts and Science adolescents on Academic Achievement.

1.7. DELIMITATIONS OF THE STUDY:

Keeping into consideration objectives and suitability of the research present study has been delimited to following:

The present study is only to find out the relationship one dependent variable i.e. Academic Achievement and two independent variables i.e. Emotional Intelligence and Styles of Learning and Thinking.

Sample of the study is drawn from only Haryana State.

To eliminate effect of extraneous factors the present study is delimited to students of Class 10+1 studying under Haryana, School Board of Education.

Sample size is delimited to 600 students of Haryana state. After reducing as per norms only 426 data used for analysis as the requirement of the study.

Worthiness of the data depends on kind of tools used for the measurement/assessment of behavior in social sciences. In the present study the investigator has used following tools and outcomes of the results delimited accordingly.

Data were collected by using following tools in the present study:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Tools used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Achievement</td>
<td>Total Marks obtained by the subject in the annual examination of 10th class.</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>Mangal Emotional Intelligence Inventory (MEII) By Mangal and Mangal</td>
</tr>
<tr>
<td>Style of Learning and Thinking (SOLAT)</td>
<td>By Venkataraman</td>
</tr>
</tbody>
</table>
**Sum up** - Introduction chapter is always an important chapter to draw an image of research studies. This chapter introduces a theoretical overview of important initiation of the study i.e. academic achievement, emotional intelligence and styles of learning and thinking. This chapter also includes need of the study, statement of problem, operational definitions of the key terms used in the study, objectives, and delimitations of the study. An overview on relationship of independent variables with dependent variable of the present investigation has been given with facts perceived by some valuable previous studies on related issues/problem in next chapter (chapter-11)