CHAPTER 2

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REVIEW OF RELATED LITERATURE

“Any worthwhile research study in any field of knowledge requires an adequate familiarity with the work which has already been done in the same area. A summary of the writing of recognized authorities and of previous research provides evidence that the research is familiar with what is already known and what is still unknown and untested. Since effective research is based upon past knowledge, this step helps to eliminate the duplication of what has been done and provides useful hypothesis and helpful suggestions for significant investigation.” (Best, 1982)

2.1. RATIONALE OF THE SURVEY AND RESEARCH

In this chapter attempt has been made to survey and critically review earlier studies related to the theme of the investigator chosen for the study of academic achievement, as correlates of achievement motivation, learning style and parental involvement. It is also meant to refer literature of the studies connected with different variables responsible for academic achievement of the students in general, and psychological variables that lead to the inclusion of achievement motivation, learning style and parental involvement in the school programme and the level of academic achievement of secondary school students in particular.

Many changes in curricula and teaching strategies that ultimately affect academic achievement of students are being witnessed in school organization. Therefore, it is pertinent to seek systematic and up-to-date information on the significant correlates of a student achievement. In this context, correlative factors affecting the academic achievement such as the student’s achievement motivation, learning style and parental involvement, require specific consideration. These factors are of utmost, theoretical and practical, importance in developing curricula and designing educational programmes to suit the needs of students with varied backgrounds. Further, the study of these factors assumes special significance in view of their implications in respect of day-to-day curriculum planning on the part of the classroom
teachers. Studies on the correlates of achievement, thus need to be thoroughly examined with a view to deriving maximum benefit from their findings for improved curricular development, efficient teaching and better academic achievement. As this study intends to identify the relationship between academic achievement and achievement motivation, learning style and parental involvement, let us look into the findings of the previous studies in this area.

2.2. STUDIES RELATED TO CORRELATES OF ACADEMIC ACHIEVEMENT

Keefe & Jenkins (1993) suggested that motivation does not guarantee academic achievement and also that achievement does not reflect motivation.

Thara, Sebastian (1997) conducted the study on adolescent children of 13-15 years, studying in IX standard of different types of schools of Ernakulam district, Kerala and examined that excessive parental pressurization in studies, reported by parents and that perceived by children, accompanies poor academic achievement, the relationship may be bi-directional. Higher parental pressure reported by parents and perceived by children are associated with low self esteem and creativity.

Roscigno & Crowely (2001) reported that the academic performance of rural children typically lags behind that of urban children.

Aguirre, Lemuel (2001) used the descriptive-associational method to describe various aspects of learning styles of Grades IV and VI pupils and academic performance was described in terms of percentages using a scale categorized as satisfactory, fair, passed, and failed. A questionnaire was designed as the main tool in gathering needed data. The learning styles percentage was used and Chi square was also used for the association of the various elements of learning styles with academic performance. Major conclusions of the study were: In the spirit of teamwork, pupils study for self-satisfaction, mostly derived from logical accomplishment of tasks, under the teacher’s guidance; most of the pupils learn in a quiet and brightly lighted place at night and for the rest of them learn by discussing informally with others; and predominantly active learners the style used is the multi-sensory type to achieve better results. Pupils were poor in English; poor in Mathematics and average in Science.

Dash, M & Khan F. (2001) investigated the impact of guided learning on the cognitive performance of low and high achievers among middle level students. Sixty
children 12-14 years of age from Bhubaneswar participated in the study. The initial performance level of the experimental and the control groups was the same, but after guided learning in the 2nd trial, the experimental group outperformed the control group in the 3rd trial in respect of all the cognitive measures. The findings showed that the guided learning was almost equally effective for all the students, irrespective of their achievement status. Results imply that school instruction should capitalize on the potential development level of students using dynamic assessment methods.

**Chhabra (2001)** in her study revealed that (1) High Achievement Group, Average Achievement group and Low Achievement group differ significantly in their achievement in Hindi (2) High Achievement group, Average Achievement group and Low Achievement group did not differ significantly in their Achievement Motivation in Hindi (3) High achievement group, Average Achievement group and Low Achievement group differ significantly in their attitude towards Hindi (4) There was positive but insignificant correlation between these variables.

**Howley (2002)** reported that there was no difference between rural and urban education.

**Rathaiah, L. & Bhaskara Rao (2003)** made an attempt to identify the role of the socio economic status, educational aspirations and adjustment of the students besides the influence of educational institutions in determining the academic achievement. These had a significant positive influence on achievement, making a clear indication of their improvement.

**Holmquist (2003)** revealed that a significant and positive relationship exist between socio economic status and academic achievement of the students.

**Rohde & Thompson (2005)** found that the measures of general cognitive ability continued to add to the prediction of academic achievement.

**Sidhu, R.K. & Singh, P. (2005)** studied the effect of Bruner’s concept Attainment Model and Ausubel’s Advance Organiser Model on scholastic achievement as compared to conventional method of teaching in Physics in relation to intelligence and achievement motivation. The sample consisted of 240 students of Class IX, enrolled in Government Senior Secondary School, Kanganwal; Government High School, Jhuner, and Government Senior Secondary School,
Sandaur (Distt. Sangur, Punjab) divided into three groups (n=80 each), two experimental groups and one control group. Pre-test, Post-test control group quasi-experimental design was employed. The statistical technique of three way analysis of variance (3×2×2) was used on gain scores for finding out the main effect and interaction effect of teaching techniques, intelligence and achievement motivation on scholastic achievement in physics of Class IX students. There was no significant effect between various teaching techniques, intelligence and achievement motivation on scholastic achievement of students for learning of concepts in physics.

**Varghese, Sany. (2005)** conducted a study to find out whether there would be any difference between high and low achievers in the academic achievement motivation, personality, family interaction patterns, study habits, teacher effectiveness & socio demographic factors and to identify the better predictor variable of high and low achievement. The secondary school students (viii-x) of Kottayam educational district in Kerela state were the population for the study. There was significant difference between high and low achievers specific to gender in AAM. High achievers have a high AAM than the low achievers. High achieving females have reported a better AAM and the low achieving males reported the lowest level of AAM. A number of socio demographic variables that were found to have some association with academic achievement was subjected for the study. Class, age, medium of instruction, father’s education, father’s occupation, mother’s education, mother’s occupation, type of school, size of class, tuition, ordinal position, academic background of the family, gender, chronic physical ailments all have a significant association with academic achievement.

**Usha (2007)** revealed that urban pupils were found superior to rural pupils in their achievement.

**Urdan, Solek & Schoenfelder (2007)** conducted a meta-analysis to synthesize the quantitative literature about the relationship between parental involvement and students’ academic achievement. The findings reveal a small to moderate, and practically meaningful, relationship between parental involvement and academic achievement. Through moderator analysis, it was revealed that parental aspiration/expectation for children’s education achievement has the strongest relationship, whereas parental home supervision has the weakest relationship, with students’
academic achievement. In addition, the relationship is stronger when academic achievement is represented by a global indicator (e.g., GPA) than by a subject-specific indicator (e.g., math grade).

\textbf{Panner & Paret (2008)} reported that there is no significant difference between male and female in academic achievement.

\textbf{Steinmayr & Spinath (2008)} found that sex difference are consistent in high school and college students' achievement.

\textbf{Ahmad, Sarfaraz & Nigam, Rashmi Sinha (Etah) (2008)} studied the effect of motivation on academic achievement of aided and private higher secondary students, a sample of 500 students of higher secondary level were taken. The data was collected on the basis of motivation test by Sharma (1984) and academic achievement was taken as the percentage of class 10th Marks obtained by students. The result suggests the motivation is significantly related to academic achievement of aided and private higher secondary students. This shows the motivation affects academic achievement of aided and private higher secondary students.

\textbf{Mehra et al. (2008)} studied the effect of cooperative learning on achievement and retention in Mathematics with different cognitive styles by taking a sample of 112 students of 7th grades and found that students when exposed to cooperative learning yielded better mean gain on achievement and retention scores as compared to those taught through conventional group learning. Field independent and dependent students yielded comparable mean gain on achievement scores but field independent students exhibited better retention than field dependent group of students; field independent and field dependent students yielded better mean gains on achievement and retention scores through cooperative learning than conventional group learning.

\textbf{Gakhar, Megha (2008)} in the study find out the relationship between measures of learning styles, thinking styles, study skills and academic achievement of students and found that students who had stronger preference for learning through structural content, concrete experience, abstract learning and artistic aesthetic interest are likely to get higher academic marks in the examination. Stronger or weaker preference of students for six learning styles as understanding movement of action, verbal explanation, open ended contents, divergent learning styles, convergent
learning styles and temporal interest, is not related with increase or decrease in academic achievement of the students. Those students who had stronger preference for thinking through imaginative thinking style are likely to get higher academic marks in the examination. As to the values of correlation between thinking styles and academic achievement of physiotherapy students, only one value is significant.

Singh, Ramesh (2008) explored the relationship between learning style preferences and academic achievement of high school pupils. The sample of the present study were the 538 pupils studying in class Xth in the schools/colleges situated in the urban and rural locality of Dehradun district of Uttarakhal state. The data was collected by using learning style Inventory and Record of Annual Examination. X2-values were calculated to find out the relationship between learning style preferences. The following conclusions are being drawn: (a) flexible, aural, short-attention span, non-motivation centered, learning-styles preferences) have been observed to be positively affecting the academic achievement of urban-pupils (both boys and girls), (b) Non-flexible, visual, non-motivation centered and environment free learning styles (preferences) have been observed to be positively affecting the academic-achievement of rural pupils (both boys and girls).

Sharma, Ekta. (2009) attempted to identify the different levels of Achievement Motivation among adolescents and the contribution of achievement motivation in predicting academic achievement. There is no significant effect of Achievement Motivation on mean performance of Academic Achievement of adolescents and there was significant contribution of Achievement Motivation in predicting Academic Achievement of adolescents.

Abidin, et. al. (2011) investigated the relationship between learning styles and overall academic achievement. In order to investigate this relationship a total of 317 students participated in this survey study. The Learning Styles Survey (LSS) instrument which is based on Joy Reid’s Perceptual Learning-Style Preference Questionnaire (1987) was used. The statistical procedures employed in this study were one-way ANOVA, and multiple regression analysis. The analyses of the data indicated a significant relationship between overall academic achievement and learning styles. It was also found that the high, moderate and low achievers have a similar preference pattern of learning in all learning styles. Moreover, the learning styles framework does not change with subjects, where it actually plays an
important role across all the subjects. Therefore, the results here suggest avenues of future research to understand this phenomenon.

**Farooq, M.S.; Chaudhry, A.H.; Shafiq, M. & Berhanu, G. (2011)** conducted a study to examine different factors influencing the academic performance of secondary school students in a metropolitan city of Pakistan. The respondents for this study were 10th grade students (300 male & 300 female). A survey was conducted by using a questionnaire for information gathering about different factors relating to academic performance of students. The academic performance was gauged by the result of their 9th grade annual examination. Standard t-test and ANOVA were applied to investigate the effect of different factors on students’ achievement. The results of the study revealed that socio-economic status (SES) and parents’ education have a significant effect on students’ overall academic achievement as well as achievement in the subjects of Mathematics and English. The high and average socio-economic level affects the performance more than the lower level. It is very interesting that parents’ education means more than their occupation in relation to their children’s academic performance at school. It was found that girls perform better than the male students.

**Zarina, Akhtar (2011)** compared the students learning styles, socio-economic status and learning achievement of developed and under-developed districts of Pakistan. 1580 secondary school students from both the areas were selected as sample. Learning style questionnaire, socio-economic status scale questionnaire and the student’s scores in SSC examination was used to collect data. The major findings were the high achievers of developed districts don’t prefer collaborative and participant learning styles they prefer independent learning style. The upper class of developed districts prefers avoidant and upper class of under-developed districts prefer dependent learning style. The middle class students of developed and under-developed districts prefer independent learning style.

### 2.3. STUDIES RELATED TO CORRELATES OF ACHIEVEMENT MOTIVATION

**Deci & Ryan (1985)** Persons of high intrinsic motivation, in the absence of incentives, proactively explore the environment, seeking interesting stimuli and opportunities for action, whereas persons of low intrinsic motivation come to a halt and remain passive until the environment provides them with incentives. They enjoy work
only after completion, when they can get a reward or celebrate avoidance of punishment. Introduction of extrinsic incentives such as money and praise in interesting tasks has been found to reduce intrinsic motivation.

Lice (1990) reported that high motivation among students who consider teachers as caring, checking on them regularly, supporting their individual learning, informing them of their progress and assigning them a variety of tasks that are designed to meet their level of learning.

Deci & Ryan (1992) demonstrated that intrinsic sense of motivation and belief in hard work are the factors which determine whether or not a student will succeed in achieving his or her goal. High quality learning has been associated with intrinsic motivation.

Ayayi (1998) in a study on achievement motivation among 276 students found that there is an association between academic performance and motivation.

Atkinson (1999) revealed that a high percentage of students will work hard to achieve tasks they do not enjoy, solely to maintain a high grade point average or high class rank.

Mukherjee, Kumkum (1999) identified the effect of different teaching methods on children’s level of motivation and independence in pre-primary schools in Calcutta. 114 children from schools following the close supervision method and 113 children from environments encouraging an indirect method of teaching were observed. Findings revealed that children from schools employing the method of indirect supervision tend to be more self-reliant and independent in their understanding and approach towards learning in general. Findings also seem to establish the superiority of the indirect method of teaching over the close supervision one.

Narasimham, C. V. (2000) studied the relationship between the academic motivation, adjustment, attitude, socio economic status (SES) and academic achievement of the secondary school students and the influence of caste, locality, gender, type of school management and SES on the students’ academic achievement, academic motivation, adjustment and attitude. 652 X class students of Visakhapatnam were constituted the sample of the study. A stratified random sampling technique was followed. Junior Index Motivation Scale (J.I.M.), Student Attitude Scale by Johnson and Kuppuswamy’s Socio Economic Scale were used to assessment. The
common public examination marks were used as marks of academic achievement. In addition to descriptive statistical analysis, Product Moment correlation, t-test and step-wise multiple regression statistical techniques were employed in the study. There is a significant relationship between the academic motivation, adjustment, attitude, socio economic status and academic achievement of the secondary school students. There is a significant influence of caste, locality & type of school management on the students’ academic achievement, academic motivation, adjustment and attitude but no influence was seen by the gender and socio economic status of the students.

Moneta & Siu (2000) found that intrinsic motivation facilitates creativity and academic performance, whereas, extrinsic motivation hinders creativity but has no effect on academic performance. In their study they examined the effect of intrinsic and extrinsic motivation in Hong Kong college students and found that Hong Kong college environment constrains and penalizes the expression of intrinsic motivation and thus creativity, and that it facilitates or rewards the expression of extrinsic motivation and thus means end opportunism. When given task or assignment without being promised rewards or punishment upon completion of the task, persons with higher intrinsic motivation continue working on the task, whereas persons low in intrinsic motivation stop working.

Again, observes that people with high extrinsic motivation do not enjoy what they do while they are doing it, that is, enjoyment does not energize their work. Their mind looks ahead and anticipates the rewards or punishments that will be received upon completion of the task or failure to complete the task.

It has also been observed that students who scored higher in intrinsic motivation also tended to produce more original thinking in their work. It has also been noted that intrinsic motivation predicted higher G.P.A. in high challenging courses. This finding supported the view that intrinsic motivation facilitates performance when facing complex learning tasks, whereas, extrinsic motivation facilitates performance when facing simple learning tasks.

They have noted that whether or not motivation influence performance depends on three things, namely, (1) Whether the person finds a suitable context or opportunity for the expression of the motivation; (2) The extent to which the environment
provides suitable context; and (3) The extent to which the environment recognizes and rewards the visible product of that motivation.

Zenzen (2002) noted that individuals would find a task easy, if they have a high probability of successfully completing it, and hard, if they have a low probability of completing it. Students who value success very highly work hard to achieve success, regardless of the task difficulty and reported that high achievement motivation and high achievement may be associated with normal perfectionism.

Pintrich (2003) stated that the relationship between achievement motivation and academic achievement is complex, but generally, the more a student is motivated to do an academic task, the greater the effort, persistence, and use of cognitive strategies expended on the task, and the better the performance on the task.

Rao, Srinivasa & Rao, Bhashara. (2003) undertaken a study to identify the level of achievement motivation and achievement in Mathematics possessed by the SC and OBC students studying in Andhra Pradesh Social Welfare Residential Schools and to study the association between achievement motivation and achievement in Mathematics. The students possessed an average level of achievement motivation and achievement in Mathematics and there was no association between achievement motivation and achievement in Mathematics.

Becker & Schneider (2004) observed that holding students to a high standard would make the most highly motivated students to devote time and effort necessary to learn, and this could produce a feeling of accomplishment in them when the standards were met.

Jahedi, Soheyla. (2004) showed that there was significant correlation between motivational beliefs components and self-regulated learning components of the students. All components of motivation and self-regulated learning strategies influenced academic achievement of students.

Sidhu (2005) in his investigation concluded that (i) Both male and female teachers were found to possess average or above average level of motivation to work. (ii) Most students displayed average and above average adjustment with school environment. The girls displayed superior adjustment as compared to boys. (iii) The girls were found to have more liking for their teachers than boys. (iv) No significant difference
was found in the achievement of boys and girls. (v) Low positive correlation were
found between students liking for their teachers and school adjustment. (vi) Better
liking for teachers contributed to better achievement of boys.

**Kaushik, N., & Rani, S. (2005)** conducted a comparative study to explore the impact
of home environment and parent child relationship on achievement motivation
of adolescents. The study was conducted on boys and girls (100 each) in the age
group of 14-16 years. The results indicated that home environment and parent child
relationship affect the achievement motivation of the adolescents irrespective of
their gender.

**Satya Prakash, C.V. and Patnaik, S.P. (2005)** studied the effect of co-operative
learning on achievement motivation and achievement in biology. The sample of
200 students from 3 schools of Tumkur town of Karnataka was selected for the
study. Out of them 100 students were treated as experimental and 100 students
as control group. The students of both the groups were matched by pairing their
intelligence and achievement scores in Biology. There was positive effect of
co-operative learning on achievement motivation. Co-operative learning has a
positive effect on achievement in Biology in terms of knowledge, understanding
and application objectives as well as total achievement.

**Weller (2005)** observed that the teachers who create warm and accepting, business
like atmosphere, is also able to promote persistent effort and favorable attitudes
towards learning. This strategy has been noted to succeed in children and in adults.
Bringing interesting visual aids such as booklets, posters or practice equipment
motivates learners by capturing their attention and curiosity.

**Schmidt, Charles P.; Zdzinski, Stephen F.; Ballard, Dennis L (2006)** attempted
to study Motivation Orientations, Academic Achievement, and Career Goals
of Undergraduate Music Education Majors. This study is an examination of
motivation orientations (mastery, intrinsic, cooperative, individual, competition,
ego, approach success, avoid failure, hypercompetition, personal development
competition) and musical self-concept in relation to measures of academic
achievement and career goals of preservice music teachers. Motivation and
self-concept variables were not correlated with academic achievement variables
and generally did not differ by sex or class level. Differences in motivation and
musical self-concept by immediate and long-term career goal categories were non significant.

**Sood, Pratibha. (2006)** investigated the educational choice in relation to academic stress, achievement motivation and academic self concept among the adolescents of the intermediate or plus two stage in their academic career. Random sampling procedure was used to select the sample. 180 students studying in the second year intermediate in the junior colleges of Hyderabad and Secunderabad formed the sample. They were from educational streams viz. BPC (Biology), MPC (Mathematics), Commerce and Humanities. The Academic Stress Scale (Rajendra & Kaliappan, 1991), Achievement Motivation Scale (Deo & Mohan 1985), and Academic Self Concept Scale (Kumar, 1998) were administered to the sample. Data was analyzed using Product Moment Coefficient of Correlation and Critical Ratio. The results revealed that subjects from BPC stream had significantly more academic stress. The medical stream also had a high need to achieve while the commerce group showed significantly least achievement motivation. Girls exhibited significantly higher achievement motivation than boys.

**Kaur and Mehta (2007)** compared the level of achievement motivation among adolescent girls. 400 XI and XII grade female students from two rural and urban government higher secondary schools, governed by Board of Secondary Education, Rajasthan, located in Jaipur district, constituted the sample. Achievement Motivation was measured by Achievement Values and Anxiety Inventory (AVAI) developed by Dr. Mehta. Results revealed that in comparison to rural girls, the urban girls showed greater achievement motivation and assertiveness related responses whereas the rural girls showed greater self confidence related responses than the urban ones.

**Nagarathanamma, B., & Rao, V. Thirumala (2007)** investigated intends to assess the mental health and status, level of achievement motivation in relation to their AA. The subjects of the study comprised of 600 students studying in high schools and intermediate (+2) colleges, in the age group of 13-18 yrs. Their achievement motivation was assessed by using suitable psychological scale and their AA was considered in terms of their grades obtained in their respective schools and colleges. It did not show any influence of achievement motivation on AA of the
subjects. Adolescents yet have to develop competitive spirit thus developing even achievement motivation.

**Whitney (2007)** argued that getting to know the students by name and the personal details of the students by the instructor was observed to stop disengagement in class.

**Ross, Shelley. (2008)** in a study looked at the relationships between motivation and academic achievement in two distinct cultures: Western (Canada, the United States, and the United Kingdom) and Asian (Hong Kong-China, Japan, and Korea). Hierarchical linear modeling (HLM) was used to analyze data from the Programme for International Student Assessment 2003 (PISA; OECD, 2004). The variables examined at the student level were instrumental and intrinsic motivation, performance orientation and self-efficacy. The variables examined at the school level were teacher support, student morale, and teacher behaviours affecting school climate. In the null models, the intraclass correlations for the Western countries were consistently lower (ranging from .17 to .27) than for the Asian countries (ranging from .36 to .53). In the final HLM models, at Level 1, intrinsic motivation predicted an increase in scores for all six of the Asian country models in which it was significant, but results were inconsistent for the Western country models. Instrumental motivation predicted an increase in scores in seven of the Western country models, but was not significant in any of the Asian country models. Performance orientation predicted a decrease in score in all of the Western country models and in seven of the Asian country models. Self-efficacy predicted increased scores for all models for all countries. All Level 1 results were similar across all academic domains. At Level 2, teacher support was significant in the models for Japan only. Results for teacher behaviours were inconsistent. Student morale was significant in all models for all countries. The findings from this study demonstrate that there are some distinct cultural differences in the relationships between achievement motivation and academic achievement.

**Washington, Demaris. (2009)** in a study examined the relationship between academic motivation, hopelessness, exposure to violence and academic achievement in adults. Results showed a significant positive relationship between an individual’s current level of academic achievement and extrinsic motivation-regulation. In addition, amotivation also showed to have a significant negative relationship
with current level of academic achievement. Hopelessness was not found to be related to either exposure to violence or academic achievement. A significant negative relationship was found between an individual’s current level of academic achievement and exposure to community violence suggesting higher levels of exposure to violence may cause academic difficulties, potentially interfering with educational attainment and achievement.

Lori L. Moore, Dustin K. Grabsch, Craig Rotter (2010) demonstrated that while all three needs (the need for Achievement, the need for Power, the need for Affiliation) were found within the responses, the need for Achievement and the need for Affiliation were more common motives for joining the voluntary, residential leadership learning community.

Muola, J. M. (2010) investigated the relationship between academic achievement motivation and home environment among standard eight pupils. The study was carried out on 235 standard eight Kenyan pupils from six urban and rural primary schools randomly selected from Machakos district. Their age ranged between 13 and 17 years. Two questionnaires, the simple profile (SP) and home environment questionnaire, were used to provide information on the pupil’s levels of academic motivation and home environment. A significant \( p < 0.05 \) positive relationship was found between six of the home environmental factors, that is fathers’ occupation \( r = 0.22 \), mothers’ occupation \( r = 0.26 \), fathers’ education \( r = 0.15 \), mothers’ education \( r = 0.14 \), family size \( r = 0.26 \) and learning facilities at home \( r = 0.23 \) and academic achievement motivation. Parental encouragement was the only factor that was not significantly \( r = 0.03 \) related to academic achievement motivation. Although these correlations are low, they showed that pupils’ motivation to do well in academic work is to some extend dependent on the nature of their home environment. It was recommended that parents need to be aware of the importance of their role in their children’s academic achievement motivation so that they can provide the necessary facilities at home.

Singh, Madhurima. (2011) studied 500 pupils’ level of achievement motivation (250 girls and 250 boys) of Xth grade in Unnao city, were selected by Lottery Random Sampling Method. Academic Achievement Motivation test constructed and standardized by T. R. Sharma (1984) was administered on them to know their
level of AAM. After analyzing the data was found that xth grade pupils had an average Academic Achievement Motivation.

Aarepattamannil, Freeman & Klinger (2011) examined the relationships among intrinsic motivation, extrinsic motivation, and academic achievement for the Indian immigrant adolescents in Canada in comparison to their counterparts in India. Descriptive discriminant analysis indicated that the Indian immigrant adolescents in Canada had higher intrinsic motivation and academic achievement than their peers in India. By contrast, the Indian adolescents in India had higher extrinsic motivation than their counterparts in Canada. Hierarchical multiple regression analyses revealed the positive predictive effects of intrinsic motivation on academic achievement for both the Indian immigrant and Indian adolescents. While extrinsic motivation had a negative predictive effect on academic achievement for the Indian immigrant adolescents in Canada, it was not a significant predictor of academic achievement for the Indian adolescents in India.

Jose, Antony. (2011) analyzed the levels & relationships of creativity, self concept and achievement motivation of adolescents and found more than high scorers than the low scorers in achievement motivation in both the CBSE and State Board adolescents. In both the male and female adolescents the low scorers in achievement motivation are more than the high scorers in achievement motivation. Low achievement motivation adolescents are more than high achievement adolescents among the total adolescents. There is no significant correlation between creativity and achievement motivation. There is significant and positive correlation between self concept and achievement motivation. But there is no significant difference among the variables & sub-samples.

Ali (2011) in his study checked the impact of motivation on students’ academic achievement in problem based learning environment in the mathematic elementary level. A control group comprising 19 participants received treatment of traditional teaching in shape of lecture/ demonstration method for four weeks. At the end, post-test was administered and the scores of pre-test and post- test were served as data of the study. It indicated the significant impact of motivation on the academic achievement of students in problem based learning environment. The result further indicated that motivation in problem based learning plays more effective role than traditional method of teaching.
Kaur, Malkeet. (2011) studied the levels and relationship between academic achievement, achievement motivation, parental encouragement, intelligence of the college students. Descriptive method of research was used to conduct the study. 600 college students of Punjab constituted the sample for the study. Majority of students come nearly mean value of academic achievement, parental encouragement, intelligence and achievement motivation score. The academic achievement of having high achievement motivation were better than that of students showing low achievement motivation. Academic achievement was found to be positively & significantly correlated with all the variables.

Chhabra, S. (2012) found that students of High and Low level Achievement Motivation differ significantly in Academic Achievement in Hindi. It implied that high Achievement Motivation enhances the Academic Achievement of students in Hindi. Male and female students having high level Achievement Motivation differ significantly in their Academic Achievement in Hindi. Female students achieve higher than male students. Female students with low Achievement Motivation had high Academic Achievement in Hindi in comparison to male students.

Saadi, et. Al., (2012) investigated the relationship between academic self-concept, achievement motivation and academic achievement, in order to measure the effects of these items on each other. Study was a correlative research. Study sample were 219 fifth grade students selected by cluster sampling method. Analysis of data was performed by simple univariate linear regression method. Results indicated that there was a relationship between academic achievement motivation and academic self-concept of the students; there was a relationship between academic achievement and academic self-concept of students and indicated there is a relationship between academic achievement motivation and academic achievement.

This summary reveals that there are no studies on level and relationship between achievement motivation, learning style, parental involvement and academic achievement of the X class urban and rural background students exclusively studying in Govt. and Aided schools of Haryana. So, there is need to study the level of achievement motivation, learning style, parental involvement and academic achievement of secondary school students of Haryana and the relationship between them.
2.4. STUDIES RELATED TO CORRELATES OF LEARNING STYLE

Dangwal & Mitra (1999) attempted to find out whether our own perception of our learning style matched other people’s perception of our learning style and used a 360-degree technique to measure an individual’s learning style as perceived by others. A Mean Learning Style and a Learning Style Vector were defined to represent a collective perception of an individual learning style. The results showed consistent differences between our own and others’ perception of our learning styles. These differences were analysed and validated using a placebo method and found to be accurate descriptions of perception. The results suggested that a learning styles inventory test, used in that manner, could be a measure of public and private perceptions of self.

Gilbert (2000) confirmed that learning preferences facilitate the way individuals learn when the environment concerns with the various learning styles.

Mathew Peacock (2001) studied the correlation between learning and teaching styles based on Reid’s hypotheses. He found out that a mismatch between teaching and learning styles causes learning failure, frustration and demotivation. He also found that learners favored kinesthetic and auditory styles and disfavored individual and group styles, while teachers favored kinesthetic, group and auditory styles.

Rao Zhenhui (2001) analyzed matching teaching styles with learning styles in East Asian contexts. He diagnosed learning styles and developed self-aware EFL learners. He mentioned that an effective matching between teaching and learning styles can only be achieved when teachers are aware of their learners’ needs, capacities, potentials, and learning style preferences. He also mentioned that it was necessary to alter the teaching styles to create a teacher-student style matching.

Vyas (2002) studied learning style, mental ability, academic performance and other ecological correlates of undergraduate adolescent girls with the objective to study the effect of ecological correlates on the academic performance of girls students by taking a sample of 545 adolescent girls and found that most of the girls showed academic attainment of average level; no significant difference in the achievement of girls belonging to arts and science group; there was significant difference in the learning style and mental abilities of girls residing in urban and rural area.
Verma (2002) studied women’s learning style in relation to certain demographic factors and academic achievement with the objective to find out the relationship of women students’ learning styles with certain demographic factors with academic achievement by taking a sample of 406 women students of grade XII and revealed that women students belonging to private institutions were higher with reference to independent, dependent and avoidant learning styles and women students of government institutions were superior to their counterparts on participant learning style; arts women students were higher in the use of collaborative learning style than science women students; significant difference in dependent, participant and avoidant learning style among high and low achieving women students on the independent and dependent styles, high achievers were superior than low achievers and in the avoidant learning style low achievers were higher than their counterparts high achievers.

Jayanthi, T. (2004) studied the influence of Psycho-social factors on receptive learning skill of teacher trainees and the influence of cognitive abilities and non-cognitive abilities on receptive learning skill of the teacher trainees. Descriptive sample survey method and quantitative approach was adopted for the study. A sample of 207 teacher trainees from DIET, Perundurai, and Erode district was selected through probability sampling technique for the study. Learning Style Questionnaire (Grasha and Teichman, 1975) was used as tool for measuring learning style. ANOVA, Chi-square test were used to analyze the data for the study. Findings indicated that the personal characteristics, i.e. age, sex did not influence the receptive learning skills of the teacher trainees. There was no significant difference in mean score in reading and listening in English between the teacher trainees who possess differential receptive learning skills. Institutional environment, faculty environment, academic environment, religion, culture, socioeconomic status, learning style, anxiety influenced the receptive learning skill of the teacher trainees. Personality trait, self-concept, locus, failure of tolerance did not influence it.

National Curriculum Framework (2005) reiterated in its chapter on ‘Learning and Knowledge’, that it has become necessary to change our approach to teaching. In fact, knowledge of the child’s information processing styles would enhance teaching and make the exercise fruitful. The teaching techniques in the schools can be undertaken in consonance with the student’s styles of learning and
thinking. Further it would enable the teacher to organize the teaching and learning procedures in such a way that they tone up and activate the hemisphere.

Aguirre (2005) found that the auditory learning style was the most representative in a group of the National University in Bogota Colombia.

Pureydathil et al. (2005) examined the cognitive processes and adjustment of TV viewers and found that light viewers were better than heavy viewers in the cognitive skills of analytical thinking, figure evaluation, similarity exploration and verbal facility; heavy viewers were more inquisitive than the light viewers; in adjustment, the light viewers were better and girls were better than boys.

Malathi et al. (2006) studied the learning style of higher secondary students of Tamil Nadu with the objective to find out the correlation between learning style and achievement of higher secondary students by taking a sample of 160 students and found that the learning style of higher secondary students was good and there was no significant difference in the learning style of higher secondary students in terms of their class and type of school; significant difference in learning style between boys and girls studying in higher secondary school and the correlation was higher between learning style and achievement which indicates that higher the achievement scores, the better the learning style among higher secondary students.

Aruna et al. (2006) studied the influence of cognitive style, intelligence and classroom climate on process outcomes in science by taking a sample of 1000 pupils of standard IXth of secondary school of Kerala through proportionate stratified sampling technique and found that boys and girls differ significantly at 0.01 level in the mean scores of cognitive style, intelligence, classroom climate and dependent variable process outcomes in science; urban and rural school students were not significant at 0.05 level with regard to cognitive style and the high mean score was associated with urban subjects; government and private school students were not significant at 0.05 level for cognitive style and intelligence; the relationship between cognitive style and process outcomes in science was significant, positive but low; cognitive style and intelligence had significant effect on process outcomes in science; the main effect of cognitive style and intelligence on process outcomes in science was significant implies that the level of process outcomes in science was different for different levels of cognitive style and intelligence.
Geetanjali (2006) studied the academic achievement in relation to cognitive style and hemispheric style at secondary stage and found that cognitive style had a significant effect on students achievement; more the field independence of the students, higher the academic achievement.

Fitz (2006) studied academic achievement of students in relation to their preferred learning, thinking styles and study skills and found that weaker preference for imaginative thinking style was likely to obtain poor academic achievement or vice versa. As regard the other thinking styles viz: logical thinking style, fractional thinking style, divergent thinking style, convergent thinking style, creative thinking style, intellectual thinking style, optimistic view of problem solving thinking style and analytical thinking style were not significantly associated with academic achievement of the students.

Tripp & Moore (2007) analysed that students tend to focus on facts, data and algorithms. Some respond strongly to visual forms of information and many others preferred to learn actively.

Vengopal, K. & Mridula, K. (2007) conducted a study on, “Styles of Learning and Thinking”. The study was aimed at examining the hemispheric preferences for information processing and styles of learning and thinking in children. Results revealed that there was significant difference in the right and left (brain) hemisphere preference for information processing among children and that boys were more right hemispheric oriented and girls were more left hemispheric oriented in information processing. Significant difference in the styles of learning and thinking and concept preference among right hemisphere and left hemisphere dominant children was also observed with respect to both genders.

Funderstanding (2008) said that learning styles are often influenced by heredity, upbringing and current environmental demands. Learners have a tendency to both perceive and process information differently.

Maria Guadalupe Garcia Castañeda (2008) investigated the learning styles of students and teachers and whether the instructors’ teaching style matches with pupils’ learning styles. The focus group was comprised by 254 learners and their 9 teachers belonging to public and private institutions in Cordoba, Sucre, Atlantico and Bolivar in Colombia. Data were gathered from many different sources. From
the information collected, it was found that the kinesthetic style was the most outstanding followed by the tactile and the auditory. It was also observed that there was no match between students’ learning style and educators’ teaching style.

The Association for Psychological Science (APS) Critique (2009) published a report and concluded that students should be grouped into the learning style categories that are being evaluated (e.g., visual learners vs. verbal learners), and then students in each group must be randomly assigned to one of the learning methods (e.g., visual learning or verbal learning), so that some students will be “matched” and others will be “mismatched.” At the end of the experiment, all students must sit for the same test. If the learning style hypothesis is correct, then, for example, visual learners should learn better with the visual method, whereas auditory learners should learn better with auditory method.

Furthermore, the panel noted that, even if the requisite finding were obtained, the benefits would need to be large, and not just statistically significant, before learning style interventions could be recommended as cost-effective. That is, the cost of evaluating and classifying students by their learning style, and then providing customized instruction would need to be more beneficial than other interventions (e.g., one-on-one tutoring, after school remediation programs, etc.).

Sharma, K.P. & Verma, B.P. (2009) studied the effects of intelligence and personality on learning styles of student teachers. The study consisted of 514 student teachers of B.Ed. level studying in six institutions of Himachal Pradesh. The results of ANOVA revealed that the intelligence was not found significant for learning modes and extraversion dimension of personality was found to have strong connection with reflective observation mode and active experimentation modes of learning.

Kenth (2009) made an investigation of cognitive style, learning style and study skills as predictors of academic achievement of prospective teachers and found that examination mastery along with cognitive style and imaginative style was found to be a good predictor of academic achievement.

Kapranos (2010) conducted a study on, “Embedding ‘Learning & Thinking Styles’ into Engineering Materials Courses.” An area identified as useful for both staff and new students is ‘Learning and Thinking Styles.’ The majority of new students join the department being used to teaching styles that might be totally different
to those they encounter in their first year at University. In addition if they are not aware of the different learning styles of teaching & learning they could potentially find themselves overwhelmed by any apparent lack of ‘understanding’ or failing to make the ‘connection’ with a subject. The study results from the experience of running this scheme as part of an Introduction Week & Skills Week combination and discusses any possible benefits from embedding ‘Teaching and Learning’ as seen through personal feedback from students.

**John L. Dobson (2010)** compared student’s perceived and assessed SMPs (sensory modality preference- visual (V), aural (A), read-write (R), and kinesthetic (K)) and examine the associations between those SMPs and status (i.e., undergraduates vs. graduates), sex, and course performance.

**Khush Bakht Hina, et. al. (2010)** revealed that different learners have different type of intelligence learning styles. The study did not found any relationship between learning styles and multiple intelligence. The results showed that mostly students have auditory and kinesthetic learning style and it has relationship with multiple intelligence categories. The study recommended that curriculum may be designed keeping in view students’ intelligence categories and learning styles.

**Jaiswal, Deepak (2010)** explored that whether the creativity makes a difference in learning style preferences of the students or not. The sample comprised of 125 high creative and 125 low creative students. Students Learning Style Scale by Grasha-Riechman and Prof. Baquer Mehdi creative thinking test were employed. The data so obtained was analysed using rank order, correlation, mean, S.D. and t. test. The findings of the study revealed that preferences of six styles of learning for high and low creative students were found almost same. Mean value make it evident that low creative students seemed to comparatively lower preference for independent, dependent, collaborative and participant learning style while low creative students had more inclination towards avoidant learning style.

**Sharma, P. & Neetu (2011)** attempted to find out the relationship and significance of difference between academic achievement and learning-thinking style of secondary school students. The study was delimited to class tenth students only. The purpose of present study was to see whether there is a relationship between academic achievement and learning-thinking style of secondary school students
or not. Normative Survey method was applied for conduction of the study. The population for the research includes students of secondary class of different areas. Mean and Pearson’s Product Moment Correlation (‘r’) are the statistical technique which helped in the analysis and interpretation of the result. The collected data was analysed and interpreted on the basis of hypothesis. It has been found that learning-thinking style and academic achievement of secondary school students are positively and significantly related to each other. Students having high academic achievement are better for teaching. It can be said that academic achievement is a factor which influence the learning-thinking style of secondary school students. It can also be concluded that male and female secondary school students are not different in respect to their academic achievement whereas they are different in respect to their learning-thinking style.

Udeani & Sunday (2011) carried out research to find out the extent of relationship among teachers’ problem solving abilities, students, learning styles, and students’ achievement in Biology. The research survey design was adopted in the study. A total of one hundred and fifty (150) randomly selected senior secondary school II (SS II) Biology students and ten (10) biology teachers from the five (5) selected schools in Lagos Mainland local government area of Lagos State served as the subjects of the study. Data were analysed using simple regression analysis, statistical package for social sciences (SPSS) such as mean, percentage, t-test and analysis of variance (ANOVA). Outcomes concluded the relationship between teachers’ problem solving abilities and student’s academic achievement in biology is positive and significant. The relationship between students’ learning styles and their academic achievement in biology was positive and significant. The effect of teachers’ problem solving abilities, students, learning styles on students’ academic performance in biology were positive and significant. Based on these, it was concluded that teachers’ problem solving abilities and students’ learning styles had significant effects on the student’s achievement in biology.

Müzeyyen Alasya. (2011) tried to identify high school students’ learning styles, high school students’ and teachers’ awareness of students’ learning styles, and how much teachers take those styles into consideration in their instruction in North Cyprus. The mixed research design was used in this research. Both qualitative and quantitative methods were used in order to collect data. The population
of the study included 9,500 students who enrolled in high schools and 1,500 teachers who engaged in teaching at those schools, and the sample of the study included 629 high school students and 8 teachers. The Turkish adapted form of the Grasha and Reichmann Learning Style Scale was used to gather information from students about their learning styles. Quantitative data were analyzed by arithmetic mean, standard deviation, Multivariate Analysis of Variances (MANOVA), Analysis of Variance (ANOVA) and Least Significant Difference Test (LSDT) techniques. Also, semi-structured interviews were administrated to both students and teachers to explore students’ learning style awareness, teachers’ awareness of their students’ learning styles and their consideration of those styles in their instruction. Through content analysis the thematic coding was implemented to analyze the qualitative data obtained from interviews. The results of the study revealed that students mostly preferred collaborative and competitive learning styles. Besides, it was found that students’ learning styles vary with respect to their gender, grade level and school type. Accordingly, female students are more competitive, collaborative, participant and dependent than male students whereas male students are more avoidant than female students. Grade 12 students are more independent than the other three grade levels’ students. General and science and English-medium high school students are more collaborative and more dependent than vocational high school students whereas vocational high school students are more avoidant than general and science and English-medium high school students. Furthermore, it was understood that students and teachers are not exactly aware of learning styles. Besides, teachers consider their students’ few learning styles, but not all the learning styles in their instruction.

Yu, Tak-ming. (2012) revealed that preferred teacher teaching behavior and thinking styles of students and teachers were related. Also, in the teacher sample, the relationship between thinking styles and preferred teaching behavior exhibited a clearer pattern than in the student sample. Moreover, teacher-centered and student-centered teaching behaviors led to student thinking style changes along different directions. Teacher-centered teaching behavior tended to cause student thinking style changes that diverged from the teachers’ own preferred thinking styles, while student-centered teaching behavior tended to shift students’ thinking styles in a direction towards their teachers’ preferred thinking styles. Furthermore, students’ thinking styles and their learning achievement were related.
Vaishnav & Chirayu. (2013) in his study analyzed learning styles prevalent among secondary school students. It was conducted on three learning styles-visual, auditory and kinesthetic (VAK). It also tried to find out relation and effect of different learning styles on academic achievements of students. A sample of 200 students of class 9th, 10th and 11th standard of Maharashtra state was selected for the study. Findings of the study revealed that, kinesthetic learning style was found to be more prevalent than visual and auditory learning styles among secondary school students. There existed positive high correlation between kinesthetic learning style and academic achievement. The main effects of the three variables - visual, auditory and kinesthetic were significant on academic achievement.

So, it is concluded that most of the studies in this category have attempted at replicating earlier studies taking different samples and by including different independent and dependent variables at various levels. We can’t find a suitable research conducted to identify the association of achievement motivation, learning style, parental involvement and academic achievement of urban, rural, Govt., Private-Aided, boys and girls of the secondary school students of Haryana.

2.5. STUDIES RELATED TO CORRELATES OF PARENTAL INVOLVEMENT

Nuzhat, Parveen (1998) carried out a study to find out the relationship between mother’s involvement level, aspiration level, educational level and scholastic achievement of their children. A purposive sample pool of 500 students studying in the 7th standard of Govt. boys and girls senior secondary schools of South Delhi was selected for the study. Analysis of the total sample revealed a close affinity between mother’s aspiration level and child’s scholastic achievement as well as the educational status of the mothers and their involvement and aspiration level. However, no close affinity could be found between mothers’ involvement level and child’s scholastic achievement. Involvement level of the mothers was very high with the academic career of girls in comparison of boys. Hence mothers of adolescent boys starting accepting their sons as growing independent.

Jeynes W H (2001) indicated that the influence of parental involvement overall was significant for secondary school children. Parental involvement as a whole affected all the academic variables under study by about .5 to .55 of a standard deviation unit. The positive effect of parental involvement hold for both White and minority children.
Jerry Trusty (2002) found that student perception of their parents’ involvement and expectations were also highly effective and influential in their education. Moreover, students who feel their parents’ support for their education and had good communication were more likely to continue their studies past high school.

Pandey, Manju (2002) carried out a study to identify and measure the severity of reading, writing, and arithmetic disability among children in relation to single parent family conditions. 60 learning disabled children aged 6-10 years were taken from primary schools (Classes II to IV) of Srinagar-Garhwal, Uttaranchal, of whom 30 had couple parents and 30 had only single parents. Non-Verbal Group Test, Arithmetic Diagnostic Test and Reading/Writing Disability Test were conducted to collect data. Results showed that the mother figure was much more important in single parenting for learning disabled children. Children having mother figure and children having couple parents showed hardly any difference in level of learning disability. Mother figure was fully capable of taking care of emotional as well as academic needs of the child, and providing the required support. It was found that learning disabled children having single parent had more arithmetic disability than those children who had couple parenting. As far as reading and writing disability was concerned, there was no significant difference between both groups.

Eunai Park & Gregory, J. Palardy (2003) conducted the study of ‘The impact of parental involvement and authoritativeness on academic achievement’ and examined the effect of three forms of parenting practices: Parental home involvement, parental school involvement, authoritative parenting style on high school student academic achievement. For this study the data was used from the National Educational longitudinal study of 1998. In this study they found that parental school involvement had a negative association to achievement for Asian and Whites, but a positive association for African Americans and Hispanics.

Evanthia Patrikakou (2004) found high educational expectations constitute a powerful way through which parents can encourage continuously the educational attainments of their adolescents in high school and beyond.

William Jeyens (2004-05) described a meta-analysis of 52 studies and confirmed that parental involvement is associated with higher student achievement in secondary school. The findings were fairly substantial and support the notion that parental
involvement has salient effects across various populations. Second, not only does voluntary parental involvement have an effect, but parental programs do as well. Third, this meta-analysis suggested that among the most important aspects of parental involvement are some of the more subtle facets of this practice, among them parental style and parental expectations.

Sahoo, Surabala (2005) found that percentage (56.40%) having good adjustment under emotional adjustment area belonging to high parent-involvement group was higher as compared to the percentage of students (47.01%) belonging to low parent-involvement group. No significant relationship was found between academic attainment and parental involvement of the students. No significant difference was found between the academic achievement of students belonging to high parent-involvement and low parent-involvement groups.

Vamadevappa, H.V. (2005) found positive and significant relationship between parental involvement and academic achievement. There was a significant difference in the achievement scores of boys and girls of high parental involvement group but there was no significant difference in the achievement scores of boys and girls of low parental involvement group. Whereas, there was a significant difference between high achievers and low achievers with respect to parental involvement.

Bansal, Thind & Jaswal (2006) showed that good quality of parental involvement had significant positive correlation with ‘high’ level (P < 0.001) of achievement motivation among high achievers. It was found that as the quality of parental involvement deteriorates, the level of achievement motivation also deteriorates.

Lee, S.M., Daniels, M.H., & Kissinger, D.B. (2006) studied identified distinct patterns of parental practices that differently influence adolescent behavior using the National Educational Longitudinal Survey (NELS: 88).Followed Brenner and Fox’s research model (1999), the cluster analysis was used to classify the four types of parental practices. The clusters of parenting practices in the current study showed convergence with Baumrind’s parenting style. The results indicated that these four clusters differentially affected students’ self-concept, locus of control, and AA.

Chow & Chu (2007) examined the predictive value of filial piety and parental involvement with respect to students’ academic behavior — orientation of
achievement motivation and amotivation and showed a positive and significant
contribution from filial piety and parental value on education in academic
achievement motivation. However, a perceived high parental expectation and
insufficient parental feedback on performance, along with less caring for parents
and mothers with lower educational level contributed significantly to students’
academic amotivation. Rather than understanding filial piety as a general concept,
we conducted a principal component analysis of filial piety and four factors were
extracted. Of the four factors, the models in this article singled out “self-sacrificing
obedience” as a motivating factor, whereas absence of or insufficient caring for
one’s parents appeared to be a factor that discourages academic achievement.

Sravanthi, S. & Ratna Kumari, S. (2007) conducted a study to know the perceptions
of adolescents on their parents parenting styles and parenting styles adopted by the
parents and to study the differences if any on parenting styles adopted by parents
and perception of adolescents on their parents parenting styles. It was conducted
on equal number of girls and boys totally comprising of 30 adolescents and their
parents. Parental Interaction Style Questionnaire (PISQ) developed by Vovekan
Reddy was used to know the parenting style followed by the parents. The results
had shown that the majority of the parents followed authoritarian parenting
style for both girls and boys in academic area and majority of the adolescents’
perceived authoritarian parenting style in academic area. There was a significant
difference found between the parenting styles adopted by parents and perceptions
of adolescents in authoritative and permissive parenting styles.

Lasso, Richard. (2008) examined the correlation between parental involvement and
three variables of student achievement: standardized tests, educational outcomes,
and grade point average (GPA). While the vast majority of the research on this
topic has examined European-American families, this review focuses on how
parental involvement correlates with student achievement across five racial/ethnic
groups. This includes African-American, Latino/Hispanic, Asian- American,
Native American, and European-American students and their families. The
article concluded that the correlation between parental involvement and student
achievement was influenced by both how student achievement was measured and
how parents choose to be involved.

Rivers, Jewrell. (2008) found a significant correlation between parenting style and
the motivation subscales. The hierarchal regression analysis revealed that only
the motivation subscales mediated parenting style in contributing to a significant amount of incremental variance in explaining academic achievement. The analysis of variance indicated that all of the criterion measures of academic achievement differed significantly as a function of plans after high school. Additionally, math GPA, English GPA, science GPA and grade point average differed as a function of race, and only English GPA differed as a function of sex.

**Epstein (2009)** worked out that parental involvement was the most powerful influence in a child’s education. It can have various effects on students, both academically and behaviourally.

**Poonam (2009)** found significant relationship between self-awareness and parental acceptance. No significant relationship was found between empathy and parental acceptance and between self motivation and parental acceptance. But significant relationship was found between emotional stability and parental acceptance.

**Obeidat & Al-Hassan (2009)** described that successful parental involvement may be defined as “the active, ongoing participation of a parent or primary caregiver in the education of his or her child”. At home, parents can demonstrate their involvement in different ways; such as by reading for their child, assisting with homework, and having regular discussions about school or school work with their child. In addition, it is important for parents to convey their expectations to their child’s education.

**Sheldon (2009)** analysed the connections between general measures of parental involvement with students’ test scores and grades. Research has provided ample evidence that parental involvement affects achievement in core subjects such as reading, mathematics and science, and the behaviour of students, their school attendance and their attitude and adjustment to school.

**Olatoye, R. Ademola & Agbatogun, A. Olajumoke (2009)** investigated the achievement of pupils in the public and private primary schools in mathematics and science. The descriptive survey research design was employed to carry out this study. Four hundred and eighty (480) pupils from thirty primary schools in Ogun State, Nigeria were randomly selected for this study. From the results of this study, parental involvement accounts for 16.1% of the total variance in mathematics achievement of primary school pupils (R2 = 0.161, p < 0.05) and 13.5% of the total
variance in pupils’ achievement in science (R² = .057, p < 0.05). These percentages are significant at 0.05 level of confidence. It shows that parental involvement is an important predictor of mathematics and science achievement. There exists a significant difference in the parental involvement of public and private primary school pupils (t = -9.68, p < 0.05). Private school pupils enjoy more parental involvement than their counterparts in the public schools. Teachers and Counsellors need to enlighten parents on the need to personally get involved in the academic activities of their children.

**Jeynes, William H (2009)** undertook a meta-analysis, including 52 studies, to determine the influence of parental involvement on the educational outcomes of urban secondary school children. Statistical analyses were done to determine the overall impact of parental involvement as well as specific components of parental involvement. Four different measures of educational outcomes were used. These measures include an overall measure of all components of academic achievement combined, grades, standardized tests, and other measures that generally included teacher rating scales and indices of academic attitudes and behaviors. The possible differing effects of parental involvement by race and socioeconomic status were also examined. The results indicated that the influence of parental involvement was significant for secondary school children. Parental involvement as a whole affected all the academic variables under study by about 0.5 to 0.55 of a standard deviation unit. The positive effects of parental involvement hold for both White and minority children.

**Vahedi, Majid (2009)** studied and gathered more information on parental participation in high schools administration and its effect on school activities and yielded a statistically significant correlation between parents participation and decision making, children learning and school activities in reading (p<0.01). All hypothesis are accepted and also we decide that the factors (decision-making, children learning and school activities) of parents participation have significance relationship together and the effects are real.

**Arrepattamannil, Shaljan (2010)** explored parenting practices parenting style, and children’s school achievement. This study drawing on data from the 2002 Survey of Approaches to Educational Planning (SAEP), examined the predictive effects of parenting practices and parenting style on children’s school achievement, and
the predictive effects of parental expectations and parental beliefs on parenting style for 6,626 respondents with children aged 5-18 years in Canada. Hierarchical multiple regression analyses, after controlling for family socio-economic status (SEES), revealed the substantial positive predictive effects of family SEES, parental encouragement, parental expectations, and parental beliefs on children’s school achievement. In contrast, parental monitoring had a substantial negative predictive effect on children’s school achievement in the context of other variables. Although parental expectations were not related to parenting style, parental beliefs were positively associated with both parental encouragement and parental monitoring – the two dimensions of authoritative parenting style.

Hasumi, Ahsan, Couper, Aguayo & Jacobsen (2010) examined the association between parental involvement and mental well-being among the 6721 school-going adolescents aged 13 to 15 years who participated in India’s nationally-representative Global School-based Student Health Survey (GSHS) in 2007. Parental involvement (homework checking, parental understanding of their children’s problems, and parental knowledge of their children’s free-time activities) was reported by students to decrease with age, while poor mental health (loneliness, insomnia due to anxiety, and sadness and hopelessness) increased with age. Age adjusted Logistic regression models showed that high levels of reported parental involvement were significantly associated with a decreased likelihood of poor mental health.

Shewta (2011) carried out investigation to assess the relationship of temperament, parenting style and parenting stress with social competence and subjective well being, and also, attempted to determine their relative contribution in Social Competence and Subjective well being.

Gurian, Anita (2011) advised that when parents contribute effort and time, they have opportunity to interact with teachers, administrators, and other parents. They can learn first-hand about the daily activities and the social culture of the school, both of which help them to understand what their child’s life is like. The child and the school both benefit, and parents serve as role models as they demonstrate the importance of community participation. In addition to improving academic progress, parental involvement pays off in other significant ways. Numerous studies have shown that parents’ involvement is a protective factor against
adolescents tobacco use, depression, eating disorders, academic struggles, and other problems. By staying involved with their child and/or teenager, parents can be a source of support, create a climate for discussing tough issues and serve as role models for responsible and empathic behavior.

Kanu Priya & Jassal, Rippen G. (2011) attempted to see the relationship of parental encouragement, academic performance and academic anxiety among rural adolescents. A total sample of 200 adolescents in the age group of 13-16 years, from different high and senior secondary schools of Ludhiana district were purposely selected. The results revealed a significant association between perceived parental encouragement and academic anxiety was found to be high for both the performance categories.

Vellymalay, Suresh Kumar N. (2011) designed a study to identify the relationship between Indian parents’ education level and their involvement in their children’s education. In total, 150 Indian students studying in National Schools in the district of Kerian, Perak Darul Ridzuan, were randomly chosen using stratified random sampling. The sample comprised 50 students from Year Three, 50 students from Year Four and 50 students from Year Five. Structured interviews were conducted with the respondents. Questionnaires were used by the researcher to obtain quantitative data related to the parents’ socioeconomic background, the parents’ involvement and the strategies the parents involvement in their children’s education. The findings of the study indicate a moderate relationship between the level of parent’s education and the strategies the parents implemented. The higher the standard of parent’s education, the higher the educational aspirations held by the parents regarding the academic achievement of their children. In addition, parents with a higher level of education tend to utilize various strategies of involvement at home and at school to foster academic excellence in their children.

Yagnamurthy, Sreekanth (2011) observed that parents have incessant interest in the education of their children. But, what makes some parents different is their ability to go beyond implicit and conventional norms of parental responsibility for the well being of their children. Parental involvement is subjective in nature and difficult to evaluate. However, in the present paper the author provides a mechanism through which parental involvement is evaluated from an ethnocentric approach. In this study, parents were selected by teachers and interviewed on the
basis of a semi-structured questionnaire. A brief note of case studies leading to a conceptual frame of parental involvement is presented in the paper. The parental involvement here is connotated as going beyond one’s own capacity through perseverance and compromise of one’s own interest for the education of children, which may have a positive impact on other children and parents. Higher the involvement, reasonably better the success of the child in education, as it involves stretching their capacity for the well being of their children, which serves as a positive reinforcement in the children’s education. The high-level of involvement does not simply mean that parents have to demonstrate their feelings to others. high-level of parental involvement has possibility of influencing the environment at home and also the outlook of the children’s education in school.

Acharya & Joshi (2011) also found that parental support was statistically positively and significantly related to achievement motivation. Children whose homes had greater emphasis on learning opportunities and activities were more academically intrinsically motivated.

Chen & Ho (2012) indicated that, for the Taiwanese sample, students’ academic beliefs mediated the relation between perceived parental involvement and academic achievement. Furthermore, the mediational effect was significant for the reciprocal filial type, but not for the authoritarian filial type. The importance of the quality of the parent–child relationship and the internalization process related to children’s assumptions of their parents’ educational values indicate the need for a contextual view when examining predictors of students’ academic achievement.

Singh and Devgun (2012) in the study aimed to find out extent of relationship between academic achievement and parental encouragement. Representative sample of 400 higher secondary school students 200 male students and 200 female students were taken by using simple random sampling technique. The tools used were Parental Encouragement Scale by Kusum Agarwal (1998), Personal Data Form (English version). The study revealed a significant positive relationship between academic achievement and parental encouragement.

Karbach, et.al. (2013) Numerous studies showed that general cognitive ability (GCA) is a reliable predictor of academic achievement. In addition, parental involvement in their children’s academic development is of major importance in early adolescence. This study investigated the incremental validity of parental involvement over
GCA in the prediction of academic performance within the domains of math and language. We examined four dimensions of perceived parental involvement: autonomy supporting behavior, emotional responsivity, structure, and achievement-oriented control. Results from a sample of 334 adolescents ("mean age" = 12.4, SD = 0.9, "range" = 10-14 years) showed that GCA was the strongest predictor of achievement in both domains. While autonomy support and emotional responsivity had no predictive value over GCA, high levels of achievement-oriented control and structure were detrimental to academic success. These findings provide new evidence for the significance of parental involvement in their children’s achievement in school even after the most powerful predictor of academic success has been accounted for.

The Impact of Parental Involvement on Children’s Education was studied and detailed on www.teachernet.gov.uk/publications.

The brief of the same is as under:

(i) Parental involvement in children’s education from an early age has a significant effect on educational achievement, and continues to do so into adolescence and adulthood. The quality and content of fathers’ involvement matter more for children’s outcomes than the quantity of time fathers spend with their children.

(ii) Family learning can also provide a range of benefits for parents and children including improvements in reading, writing and numeracy as well as greater parental confidence in helping their child at home.

(iii) The attitudes and aspirations of parents and of children themselves predict later educational achievement. International evidence suggests that parents with high aspirations are also more involved in their children’s education.

(iv) In 2007, around half of parents surveyed said that they felt very involved in their child’s school life. Two thirds of parents said that they would like to get more involved in their child’s school life (with work commitments being a commonly cited barrier to greater involvement).

Review of above researches indicates a distinct variation in relationship between parental involvement and academic achievement. Some of the researchers have
found no relationship where as others have reported positive relation. Some have shown even a negative relationship between the level of parental involvement and academic achievement.

2.6. RELEVANCE TO THE REVIEW OF THE PRESENT STUDY

The extensive review of related literature pertaining to the achievement motivation, learning style, parental involvement and academic achievement of different class and levels is presented in the preceding pages. After a thorough study of the past research studies, researcher has found some gaps and deficiencies. Though a lot of researches have been conducted on academic achievement and the factors influencing it, but there is hardly any study on achievement motivation, learning style and parental involvement as correlates of academic achievement of secondary school students.

A large number of studies revealed that low academic achievers were comparatively less motivated, not able to learn and memorize the concepts and possessed low parent participation in their academics than over achievers. Further, most of the researchers found that high level of parental support; encouragement and involvement were positively and significantly correlated with academic achievement whereas, low level was negatively correlated with stress, anxiety and failure. But a few studies revealed inconsistent findings regarding achievement motivation, learning style, parental involvement and academic achievement.

Most of the studies used “cognitive style tool” that assess field dependent and field independent category and hardly any study was conducted on learning style that assess systematic, intuitive, integrated, undifferentiated, and split learning style as adopted in the present study. Most part of these studies revealed positive correlation between learning style and academic achievement and a negative correlation between field dependent and academic achievement. A few studies revealed no significant relation between these variables. But there is hardly any study on the relationship of learning style and achievement motivation and parental involvement. It should be noted that population of these studies were different such as gifted, learning disabled student with specific subject and specific area.

Regarding the relationship between academic achievement and achievement motivation, most of the researches disclosed that achievement motivation was positively correlated with academic achievement. So far as the relationship of achievement motivation with learning style and parental involvement is concerned, the findings were inconsistent.
Few researches showed the significant influence of gender on academic achievement without any direction and some studies showed significant gender difference regarding motivation as indicating that girls showed better than boys. Regarding learning style inconsistent results were found on gender differences. On parental variables, large gender differences were found and a few studies showed no differences for specific parental factors.

The influence of school management on academic achievement was assessed. Majority of studies showed that academic achievement of students studying in government schools was poor. Few studies reported a significant influence on type of school management on academic achievement without any direction. Research in abroad, revealed less significant differences in the academic achievement of government and privately managed schools. Indian studies showed that most of the urban school managed privately performed better than private and rural government school.

Studies on adolescents, residing in urban and rural area, divulged the difference in academic achievement. The review of past researches also concludes that most researchers have incorporated the location of school rather than location of residence of students. But, in the present study location of residence of students was considered as one of the variables of the study. The findings of the past studies showed that students studying in urban schools performed better in academic achievement than students studying in rural schools. Some studies reported significant difference in academic performance between adolescents residing in rural and urban area without any direction. A few studies reported no difference on the basis of location. Hardly there is any study which was conducted to assess the location difference for learning style with inconsistent results. Although some studies were conducted on location difference for parental factors, but the findings were inconsistent.

After summing up the survey and review of above studies, it can safely be concluded that number of studies on each correlate namely Achievement Motivation, Learning Style and Parental Involvement, as a single or in combination of two correlates of academic achievement have been conducted but, there is hardly any study which could establish a relationship of student’s motivation, learning style, parental involvement, sex, locality and type of management of school in association of all these correlates with academic achievement for the secondary school students of the country including Haryana. Therefore, an attempt in the present study to find out an influence, if any, of all these above mentioned factors together with academic achievement is made.