CHAPTER II

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2.1 The ‘Why’ of the Review:

The review of related literature is an important aspect in any research. Knowledge acquired through generation is well displayed in books, which are arranged in libraries. Each new generation of human beings makes use of accumulated knowledge as a foundation for building up further knowledge. Hence, the study of literature is necessary in any field of enquiry.

Review of literature gives us the relevant material published in the problem area under study. The studies conducted during the last few decades in the field of the teacher education that are more relevant and pertain to the present investigation are discussed in this chapter.

In the field of education as in other fields too, the researcher needs to acquire up-to-date information about the area of research. Availability of adequate information and possession of sufficient familiarity with it, are unavoidable to a researcher. It helps the investigator to decide whether the evidence already available solves the problem adequately without further investigation, and thus to avoid risk of duplication.

The literature provides ideas, theories explanation etc., valuable in formulating the problems and methods of research appropriate to it. The advantage of knowledge, which has accumulated in the past, is a result of human endeavour. A careful review of the research journals, books, dissertations and other sources of information on the problems to be investigated are one of the important steps in planning of any research work. In other words, research work begins in vacuum. The related literature is worthwhile for an effective research.
In the field of education as in the other fields too, the research worker needs to acquire up to date information about what has been thought and done in the particular area from which the investigator intends to take up a problem for research. But it is found that generally the extent of important, up to date information regarding educational research and ideas possessed by educational workers is very limited.

Availability of adequate information about educational thought and research does not by itself result in possession of its knowledge by the researcher. The researcher must apply himself keenly to the task. On the other hand a research worker may be very keen to possess up to date information regarding his field and may try hard to be posted up-to-date and yet fail to get enough information due to the non-existence of sources of such information.

Study of the related literature allows the researcher to acquaint him with current knowledge in the field or area in which he is going to conduct research serves the following purposes –

- The study of related literature enables the researcher to define the limits of his / her field.
- The researcher can select those areas in which positive findings are very likely to result and his / her endeavours would be likely to add to the knowledge in a meaningful way.
- It gives the researcher an understanding of the research methodology, which refers to the way the study, is to be conducted.
- It locates comparative data and findings useful in the interpretation and discussion of results.
- It helps in developing expertise and general scholarship of the investigator in the area investigated.
Keeping in view these purposes the investigator makes a study of the related literature in the following pages:

2.2 Need to know about the related literature:

According to Best (1959) "Practically all human knowledge can be found in books and libraries. Unlike other animals that must start a new with each generation, man builds upon accumulated and recorded knowledge of the past". Review of related literature widens knowledge, deepens understanding and builds up ideas and insights for better perspective and therefore is an essential aspect of research. The availability and utilization of adequate sources of related information are essential for a proper research activity. It gives adequate information about different researches related to the present study. It also guides and directs the researcher to collect useful material for the purpose of study.

Survey of related literature, besides forming one of the early chapters in research report for orienting the researches, surveys some other purposes. Good, Barr and Scates (1941) analysed these purposes as given under:

- To show whether the available evidence material solves the problem adequately without further investigation.

- To provide ideas, theories, explanations or hypotheses valuable in formulating the present study.

- To suggest the research methods to the problem.

- To locate comparative data useful in the interpretation of the results.

- To contribute the general scholarship of the investigator.
2.3 Adjustment process:

"Life represents a continuous chain of struggle for existence and survival", says Darwin (1859). In struggling to achieve something if one finds that results are not satisfactory, either changes one's goal or the procedure. This special feature of the living organism is termed as adjustment. Adjustment is the interaction between a person and his environment.

Adjustment as a process is of major importance for psychologists, teachers and parents. To analyse the process, we should study the development of an individual longitudinally from his birth onwards. The child, at the time of his birth, is absolutely dependent on others for the satisfaction of his needs, but gradually with the age advances, he learns to control his needs. His adjustment largely depends on his interaction with the external environment in which he lives. When the child is born, the world for him is a big buzzing and blooming confusion. He cannot differentiate among the various objects of his environment but as he matures, he comes to learn to articulate the details of his environment through the process of sensation, perception and conception. The child in his infancy, can respond and think about only concrete objects of his environment. The process of abstraction comes afterwards. The young children lack the capability of self-control of the instinctive impulses.

Anything, which appears to their senses bright, they try to take hold of it. Their development is purely on instinctive level. The nature of adjustive process is decided by a number of factors, particularly, internal needs and external demands of the child.

When a conflict occurs between internal needs and external demands, in such conditions, there are three alternatives:
1. The individual may inhibit or modify his internal need or demand.

2. He can alter the environment and can satisfy his demands and

3. He can use some mental mechanism to escape from the conflicting situation and may be able to maintain the balance of his personality.

Piaget (1952) studied the adjustive process from different angles. He used the term *accommodation* and *assimilation* to represent the alternation of oneself or environment as a means of adjustment. A person, who carries his values and standard of conduct without any change and maintains these in spite of major change in the social climate, is called assimilator. The man who takes his standard from social context and changes his beliefs in accordance with the altered values of the society, is called accommodator.

Now the question arises which of the above referred process of adjustment is more effective. It is very difficult to answer this question in clear-cut terms because relative merits of either of the adjustive process, requires making value judgement. The human being, in order to adjust successfully in his society, has to resort to both the devices.

Freud, Adler and Jung (1963) have made very significant findings regarding adjustment process. The concept of adjustment is as old as human race on the earth. Systematic emergence of this concept starts from Darwin. In those days the concept was purely biological and he used the term adoption. The adaptability to environmental hazards goes on increasing as we proceed on the photo genetic scale from the lower extreme to the higher extreme of life.
Adjustment is a life long process starting from birth of the child. Though
the home can develop many good habits, which may help in the future
adjustment of the child, the schools too have a pivotal role in guiding the child.
Moreover, there are many conditions in the school, which may lead to the
child's maladjustment.

Man among the living beings has the highest capacities to adapt to new
situations. Man as social animal not only adapts to physical demands but also
he adjusts to social pressures in the society. Adjustment is an important
characteristic of living organism. Every individual develops of his own, unique
way of treating various societal and natural constraints. It seems to be
influenced by the various psychosocial factors and reflected in terms of
behavioural activity.

2.4 Adolescence Stage:

Adolescence has been defined in a number of ways from different points
of view: as a period of physical development, a chronological age span or a
sociological phenomenon. The term, "adolescence" comes from the Latin word
"adolescere" which means to grow into maturity. In this sense, adolescence is a
process rather than a period, a process of achieving the desirable growth,
attitudes, beliefs and methods for effective participation in society as the
emerging adult.

Adolescence marks intensive changes among the adolescent girls-
physically, physiologically, psychologically and sociologically. Society,
particularly Indian society, enforces them to act in a particular manner through
code of conduct.
Adolescent period is the most critical period of individual's development, which begins at 12-13 years with the onset of puberty and ends at 18-19 years with the assumption of adult responsibilities. It is characterised by the changes in physiological, psychological and sociological aspects of individuals. Hall (1904) views adolescence as a period of storm and stress marked by vacillating and contradictory emotions. According to Gillmore et.al.(1984) lack of experience, egocentrism and curiosity to experiment with new and sometimes risky social roles in order to establish unique identity, place adolescents in high risks for developing certain emotional and social problems.

The socio-economic and personal factors have school and community environment, which affect their growth and development. Consequently, in an effort to cope up with these changes, they develop problems. The optimum development of a girl and a boy at the stage depends upon successful accomplishment of the developmental tasks during infancy and childhood. At the same time, society lays down a code of conduct in the form of rules and regulations to be followed by them at this stage.

2.5 Aspects of Adjustment:

The main areas or aspects of adjustment identified by Bell (1958) are:-

1. Health Adjustment
2. Emotional Adjustment
3. Social Adjustment
4. Home Adjustment
5. Occupational Adjustment
Arkoff (1968) has enumerated the family, school or college, vocation and marriage as the important areas of adjustment. Joshi and Pandey (1973) have identified the following 11 areas of adjustment.

1. Health and physical development
2. Finance, living conditions and employment.
3. Social and recreational activities.
4. Courtship, sex and marriage
5. Social, psychological relations.
6. Personal, psychological relations.
7. Moral and religious values.
8. Home and family
9. Future – vocational and educational
10. Adjustment to school, and college work
11. Curriculum and teaching.

Thus, adjustment is the interaction between a person and his environment in the above-mentioned aspects. How one adjusts in a particular situation depends upon one’s personal characteristics as well as the circumstances of the situation. In other words, both personal and environmental factors work side by side in adjustment. An individual is adjusted to himself and to his environment.

Adjustment of a student is related to arriving at a balanced state between his needs and satisfaction. Needs of the individual is multidimensional. Good adjustment is realistic and satisfying. Frustrations, tensions and anxieties are reduced to the minimum. Students have good adjustment in all the aspects of their life if there is balance between their academic, intellectual, emotional, social and other needs and their satisfaction.
2.6 Who is an adolescent?

A child is described as an adolescent when he achieves puberty, that is, when he has become sexually mature to the point, where he is able to reproduce his kind. He ceases to be an adolescent when he has acquired maturity to play the role of an adult in his society or culture. Maturity as the term used here, does not mean mere physical maturity, it also implies mental, emotional and social maturity.

Adolescence is a period of growing independence and self-definition, during which a person begins to form an adult identity. Forming this identity involves developing feminine or masculine identities, achieving autonomy from parents and greater identification with peers. This is the period where the students have to make many important decisions about their education and career, which is going to effect their later life. Psychologists believed this to be a period of stress and storm. However recent studies have proved that this period need not be a period of stress and storm, if proper guidance is given to the students. This discussion will help us the various aspects of the growth and development of adolescents so that we will be able to direct our students in the right direction.

2.7 Different adjustment problems at adolescence:

The word “adolescence” comes from the Latin word or verb “adolescere” which means, “to grow”. So the essence of the word adolescence is growth and it is in this sense that adolescence represents a period of intensive growth and change in nearly all aspects of Child’s physical, mental, social and emotional life. It is a very crucial period of one’s life. The growth achieved, the experience gained, responsibilities felt and the relationships developed at this stage destine the complete future of an individual. Since this is a very important stage of development to be understood by the secondary and higher secondary school teachers.
It is very difficult to point out the exact range of the adolescence period in terms of chronological years. In our country in comparison to western countries, the period of adolescence starts early as Indian children achieve puberty earlier, because of the favourable calmative and cultural factors. The adolescents can be referred as teenagers—the individuals having chronological age between 11 to 19 years.

We can think of adjustment as psychological survival in the same way as biologist uses the term adaptation to describe physiological survival. Adjustment is the process by which living organism maintains a balance between its need and the circumstances that influence the satisfaction of these needs. According to Gates, Jershid et al., (1978) "Adjustment is a continual process by which a person varies his behaviour to produce a more harmonious relationship between himself and his environment". Here are some universally accepted points about adjustment.

1. Adjustment is a process that takes us to lead a happy and well-contented life.

2. Adjustment helps us in keeping balance between our needs and the capacity to meet these needs.

3. Adjustment persuades us to change our way of life according to the demands of the situation.

4. Adjustment gives us strength and ability to bring desirable changes in the conditions of our environment.

Besides the demands of one basic need, society also demands a particular mode of behaviour from members. Here adjustment also needs one's conformity to the requirement of one's culture and the society. In this way, adjustment does not only cater to one's own needs but also to the demands of the society. Therefore, in defining adjustment in its comprehensive way, we
can conclude that Adjustment is a condition or state in which one feels that one's needs have been (or will be) fulfilled and one's behaviour conforms to the requirements of a given culture.

2.8 Characteristics of a well-adjusted person:

A well-adjusted person is supposed to possess the following characteristics:

1. Awareness of one's own strengths and limitations.
2. Respecting one's self and the others.
3. An adequate level of aspiration.
4. Satisfaction of the basic needs.
5. Absence of critical or fault finding attitude.
6. Flexibility of his behaviour.
7. Capable of struggling with odd circumstances.
8. A realistic perception of the world.
10. An adequate philosophy of life.

Being better adjusted Individuals:

A well-adjusted individual is an asset to himself and a boon to the society whereas a maladjusted personality brings misfortune to one's self and discomfort to others.

The following measures may prove fruitful in this directions:

1. Balanced growth and development: - We must be careful in bringing balanced growth and development of a Child's personality. His physical and mental health as well as his social, emotional and aesthetic development should be properly attended to.
2. **Satisfaction of the basic needs:** - The degree of one's adjustment is directly proportional to one's feeling of satisfaction with regard to one's varying needs. Therefore, the child should not suffer from physical, mental, emotional and social starvation.

3. **Awareness of strength and weakness:** - The child should be helped in realising his strengths as well as weakness.

4. **Setting a proper level of aspiration:** - The child should be helped in setting a proper level of aspiration, ideals, and ambitions for going ahead in his life.

5. **Developing tension - tolerance:** - We should help children in developing tension - tolerance in them so that they may not break under stresses and strains of the odds of life.

6. **Harmony with the demands of society and culture:** - In order to help children in adjusting with the demands of the society and culture, teachers and parents should themselves try to practice the right ways and good habits.

7. **Providing healthy environment:** - Mal adjustment is a product of faulty up - bringing and uncongenial environment at home, school, and other places of social contact. Therefore, proper care should be taken to provide healthy environment of the children by the teachers, parents and other responsible members of the society.

8. ** Provision of guidance and counselling:** - Life is made up of numerous problems. They are found bound to exist. Children should be made to face them independently. But in many cases they need proper guidance in making right choices and proper selection with respect to their education, vocation and personal world.
2.8.1 Physical Development and Changes

Physical growth and development refers to a process which brings bodily and physiological changes—internal as well as external—in an organism from the conception till his death. Generally these changes take place in the following dimensions:

i) In his gross physical structure or physique: It involves changes in terms of height, weight, body proportions and general physical appearance.

ii) In his internal organs: It involves changes in the functioning of glands, nervous system and other body systems—circulatory, respiratory, digestive, muscular, lymphatic and reproductive.

During adolescence, the physical growth and development reaches to its peak and human body finds its final shape. The maximum limit with regard to increase in size, weight and height is achieved. Bones and muscles increase to the greatest possible extent leading to a great increase in motor activity. The growth function of all other outer and inner organs also reaches to its maximum and almost all the glands become extremely active at this stage.

There is a growth of hair under arms and around genital organs. Boys and girls develop the characteristic features of their respective sexes. There is the roundness of the breasts and hips among the girls and the decoration of the faces with beard and moustaches among the boys. There is a distinct change in voice between the two sexes. While the girls’ voice acquires shrillness and becomes sweet, the boys’ voice deepens and becomes harsher. In this way physiologically, the boys and girls attain all the male and female characteristics respectively during this age and prepare themselves for being called men and women or gentlemen and ladies.
Physical development influences the total make-up of the individual and thus needs a very careful attention. It can help the teachers to achieve one of the most important aims of the educational process - to bring an all around balanced development in the personality of the child. Therefore, the knowledge of the process of physical growth and development is very essential for the teacher. Specifically it can serve him in the following ways:-

1. He can be aware of the physical deviates, their psychology and problem of adjustment. Consequently he can help them in their social and emotional adjustment as well as in school learning.

2. The children are the backbone of the nation's strength. Their health and proper physical development is an asset to the progress of the country. Our schools have to play decisive role in the task of physical welfare of children. The teacher with the knowledge of the physical growth and developmental process can render valuable help in this direction.

3. Needs, desires, interests, attitudes and in a way of the overall behaviour of an individual is controlled, to a great extent, by his physical growth and development. Therefore at a particular age level what would be the expected behaviour of the child of that age group can be estimated through the physical growth and developmental pattern.

4. Study of the pattern of physical growth and development helps us in knowing what can be expected normally from the children at a particular age level. In turn it can help us to arrange school programmes like curricular and co-curricular experiences, methods and techniques of teaching, time-table, text-books, aid material, seating arrangement and learning environment, etc.
2.8.2 Mental Development and Changes

The growth and development of the mental abilities and capacities which helps an individual to adjust his behaviour to the ever changing environmental conditions or to enable him to accomplish a task that needs complex cognitive abilities is referred to as mental or intellectual development.

Adolescence is the period of maximum growth and development with regard to mental functioning. Intelligence reaches climax during this period. Intellectual powers like logical thinking, abstract reasoning and concentration are almost developed up to the end of this period. An adolescent learns to reason and seeks answer to "how and why" of every thing scientifically. His power of critical thinking and observation is much developed. He does not try to follow the beaten track. He is almost critical of everything. He develops a fine imagination. Writers, artists, poets, philosophers, and inventors are all born in this period. Improper canalisation of imagination and dissatisfied needs may turn an adolescent into daydreaming. Therefore a great care is to be taken for properly cultivating their power of imagination.

Here worship is the most prominent in this period. Adolescents, generally, love adventures, wandering, fairly tales and develop interest in reading such books. Their area of interest is actually widened. Adolescence is the age of action. According to the difference in tastes and temperaments, nearly all the adolescents have some or other hobbies and strong like and dislikes for the world of nature, man and things.

The knowledge of the trend of mental growth and the subsequent changes in the various mental abilities is of great use for the teacher. Briefly, we can summarize this utility in the following way:-
1. It can help him in the selection of curricular and co-curricular experiences at various age levels.

2. It can also help him to arrange learning situations, decide methods and techniques of teaching and the nature of the aid materials for the illustration of his teaching.

3. It can also help him to bring appropriate books suiting to the intellectual growth and development of children at different age levels.

4. It marks his conscious that a particular type of work or activity which needs some or the other developed mental activities needs to be introduced when the age of acquiring that approaches.

5. If he understands the pattern of mental growth, he can lead his students to acquire them maximum mental capacity and power. He can impart training in problem solving and creative expression. Also he can develop their logical understanding and take them to intelligent learning in place of mechanical fumbling and Pan of like cramming their ability of using language, perception and ability to interpret and generalization can also be developed through the natural course of their mental growth and development pattern.

In this way a teacher can lead his students to acquire them maximum mental capacities powers and help them to use them intelligently and judiciously for the welfare of their own as well as of the society.

2.8.3 Emotional Development and Changes

Emotional development reaches in maximum during adolescence. It is the period of heightening of all emotions like anxiety, fear, love, anger, etc. Once again like an infant, an individual experiences emotional instability and intensity during adolescence. The physical growth and development becomes
maximum, the strength of the body gives opportunity for maximum motor activity. Therefore in matter of emotional expression and experiences the adolescence provides the highest peak. At no stage the child is so restless and emotionally perturbed and touchy as in adolescence. He is too sensitive, inflammable and moody.

The adolescents are not consistent in their emotional expressions. Their emotions fluctuate very frequently and quickly. Self-consciousness, self respect and personal pride is too much increased. Group loyalty and sentiments of love etc., are developed which make an adolescent sentimental and passionate. What he feels, he feels it very strongly and when he reacts, he reacts vigorously.

2.8.4 Social Development and changes

Adolescence is the period of increased social relationships and contacts, whereas a child cares very little for the society. An adolescent develops a good amount of social sense. He ceases to be egocentric, selfish and un-social. Now he wants to mould his behaviour according to the norms of the society.

The social circle of an adolescent is very wide. Contrary to childhood, he becomes interested in opposite sex. The friendships are no longer normal. He believes in making intimate friendship and attaches himself closely to a group. Peer group relationship controls the social behaviour of this age. The child develops a strong sense of loyalty towards group. He wants to be accepted by the groups of which he is a member. The rejection is closely as it creates so many adjustment problems.

Another significant change in the social aspect of the child during adolescence lies in his relationships with his parents and the family. Now there is a craving for independence. He wants that the parents and the elderly members of his family should recognize his personality. He must not be treated
as a child. He gives more importance to the values and beliefs maintained by his peer group than the advice of his parents. There may even be hidden or open rebellion, if the parents try to impose their opinion and values on their adolescent children.

### 2.8.5 Moral and Religious Development and Changes

With the development of social and civic sense, the children during the period learn to behave according to the norms of their society and culture. Also the group sense makes them follow some moral or ethical code. It prepares a stage of proper moral development. The formation of strong sentiments during this period intensifies the process of moral development. The character by which we know a person is his life; to a great extent, is the product of the experiences gained, complexes formed and sentiments made during this age.

The impact of religion and religious practices is also felt for the first time at this age in one’s life. An adolescent tries to talk about God and religion. He often engages himself in the discourse about philosophical concepts like soul, Brahma, the meaning of life, the question of death, etc.

**Special Characteristics of adolescence:**

1. Perplexity with regard to Somatic variation.
2. Intensification of self awareness
3. Intensification of sex – consciousness
4. Independence Vs dependence
5. Peer-group relationship
6. Idealism Vs realism
7. Vocational Choice and need of self – support.
Adjustment, Frustration and Defence mechanism:

No doubt, adjustment is a life long process starting from the birth of the child. Though the home can develop many good habits, which may help in the future adjustment of the child, the schools too have a pivotal role in guiding the child. Moreover, there are many conditions in the school, which may lead to the child's maladjustment.

2.9 Studies related to adjustment problems:

2.9.1 Gender Vs Adjustment problems

Adjustment involves the ability to solve one's personal problems in a socially acceptable and constructive way. Many factors including gender, family literacy level and family income influence adjustment.

Pathak and Malhotra (1975) compared boys and girls in their levels of home, health, social, emotional and school adjustment. They found that girls had more problems than boys in each area of adjustment. Webb and Allen (1979) investigated relationship between sex and mental illness. The strongest correlations were found between sex and four subscales of Denver Community Mental Health Questionnaire. Women tended to be productive and evidenced more psychological distress than men. A modest correlation was found on the Taylor Manifest Anxiety Scale with women showing higher scores.

Cusick (1980) found that female students experienced more problems in areas such as social, recreational activities and personal, psychological relations. Achenbach and Edelbrock (1981) compared behavioural problems reported by parents of normal and disturbed children aged four through sixteen. Results showed numerous gender differences on specific items but no specific gender difference in total behavioural problems.
Subramanyam (1986) found that sex differences are significant with respect to academic adjustment favouring the boys. The boys are better adjusted with the present school environment compared to girls. Contradicting the above results Ahluwalia and Kalia (1987) found the female high achievers are better adjusted on social, health, emotional, school and home adjustment in comparison to male high achievers.

Prathyusha (1987) in her study reported that girls are superior to boy's mental health status. Similarly, Alexander and Rajendran (1992) found that female students are better adjusted than male students. They noted that male students desire for wider social relations, longing for higher living conditions and their expectations would be higher. This insatiable proclivity creates problems whereas the female students' needs are limited and would be in the reaching limits and hence they have less adjustment problems.

However Kakkar (1967) reported that the adjustment problems of boys do not differ significantly from those of girls. Singh (1981) found no significant sex differences on five components of adjustment viz, academic matters, school matters, school organization, teachers and self. Similarly Ghouse and Khurana (1986) conducted an investigation to find out the difference between adolescent boys and girls in their adjustment and disclosed no significant difference. Vasishtha (1990) in his study on 80 adolescents in the age group of 15-18 years found that school adjustment of adolescent pupils did not vary with sex.

Sundararajan and Mary (1992) studied adjustment problems of high school pupils. The results obtained by them revealed that pupils had satisfactory levels of adjustment in emotional, social and educational areas. However in the area of social adjustment comparatively a large number of pupils did not have a satisfactory level of adjustment. In the other two areas their levels are satisfactory and the level in educational area is more
satisfactory than the emotional area. Priscilla and Karunanidhi’s (1998) study on 100 girls of 8th and 9th standards showed that low self esteem and adjustment problems tend to increase the behavioural problems of adolescent girls.

Uniyal (2002) examined in a study that the females are found to have recorded good home adjustment than males. Also found home, school and social adjustment effect the achievement of the students. In a study Veena Easvara Doss, Sumathi and Rekha (2005) observed no significant gender differences were found on their adjustment problems. And also found not significant influence of employed and unemployed mothers on the adjustment problems of the children.

Evi Makri (2005) investigated that girls are more vulnerable to depressive symptoms than boys with this gender difference widening during adolescence. Also found the scholastic competence is stronger for boys. Manimekhalai, Selvem and Williams (2005) found that boys had more adjustment problems than girls die to uncontrolled life situations when they were with their parents or the girls adjustment with the conditions of the school.

2.9.2 Type of School vs Adjustment problems:

There is a great deal of controversy on the importance of co-education and single sex schools. In this section an attempt has been made to review the empirical studies on effects of two types of schools on pupils.

King (1966) compared mathematical attainment of 1535 students studying in single sex schools and 1021 studying in co-education schools. It was concluded that boys and girls from single sex schools do consistently better than those from co-education schools. Jones, Shallerass and Dennis (1972) showed that students as both more academically oriented and satisfying than co-education schools viewed single sex schools.

Shantha Kumari (1975) found that the girls studying in single sex schools had less adjustment problems than their girl counterparts studying in co-educational schools. She concluded that nature of the school has significant influence on the level of adjustment of the students.

In a laboratory experiment Lockheed (1976) found that adolescent female participation rates and leadership behaviour in a game-playing situation were significantly increased by previous game experience in a single sex condition. No significant single sex effect for boys was reported.

Trickett, Castro and Schaffiner (1982) assessed the normative environments of 15 representative single sex and co-education schools by Trickett and Moos classroom environment scale and a student experience questionnaire. The sample includes 456 students in 78 classes of 15 schools. Single sex schools were perceived as having more academic orientation with greater task emphasis and competition than co-education schools. There were no difference between types of school, in the number of extracurricular
activities students participated in, but co-education school students reported spending more time per week on extracurricular activities than single sex school students.

In a study Riordar (1985) found positive effects in achievement for single sex schools, particularly for girls. Lee and Bryk (1986) study showed that girls' schools evidenced consistent and positive effects on student attitudes towards academics. The students were more likely to associate with academically oriented peers. The effects of boys' schools on academic attitudes were also generally positive but weaker than in the girls' schools. With regard to school related behaviours students in single sex schools did somewhat more home work and this was especially true for girls.

In a study on adjustment problems of students of co-education and non-co-education colleges, Govind and Venkatammal (1999) found that there were no significant differences between students of co-education and non-co-education college students in their home, health, social, emotional and educational adjustment problem areas. In the study they revealed that boy students differed only in the area of home adjustment problems. No significant differences were found in all these areas in the case of girl students.

The reviews of the above studies indicate that single sex schools deliver specific advantage to their students. Researchers found single sex schools to evidence a more academic orientation greater task emphasis, greater interest in academics, more time spent on homework and more adjustment.
However the following studies reveal the negative effect of single sex schools.

One interesting study about sex differences in adjustment was reported by Stanchfield (1965). She grouped boys and girls separately in eight schools and assigned both men and women teachers to these classes and the regular non segregated classes used as controls. Girls excelled in every case whether mixed with boys or separated from them. Moreover boys in segregated group became overly energetic and active making control more difficult than in regular classes.

A similar finding was reported by Tagatz (1966) in an experimental study, involving first and second grade children. In segregated group girls were described as working more quietly, having a longer attention span, bring more independent and co-operative. The boys were seen as restless, inattentive to directions and generally difficult to manage.

A revised Boxall school anxiety test was administered by Dale (1969) to 1,120 first year grammar school pupils from 42 mixed 'boys and girls' schools. It was found that pupils in single sex schools had slightly high anxiety scores than those in mixed schools. Campbell (1969) studied 105, girls aged 12 to 13 years from the girls school and 53 from two co-education schools. Girls in the single sex schools regarded school in a more hostile light than girls in the co-educational schools. To a lesser degree, a similar finding came from the responses to stems on attitude to home, girls in the single sex schools giving relatively fewer affective responses and fewer of these being favourable. Responses on attitudes to peers and self, there were generally no significant differences except for some of the co-educational pupils greater awareness of their femininities.
Vani (1995) reported that mean mental health index score of boys of single sex schools was lower compared to the boys studying in co-education schools. In contrast there was no significant difference in the mean mental health index score of girls of single sex and co-education schools.

The studies reviewed below show positive effects of co-education on students.

Lotz (1953) administered the Mooney problem checklist to students of a mixed, a girls' and a boys' high school roughly matched for background. He found that areas such as social, emotional and courtship the differences between girls were significantly more favourable to the mixed than the girls' school. Whereas in the case of boys and the group from mixed school the differences were not statistically significant.

Scores on the evaluation potency of four concepts concerning school and four about university were obtained by Dale and Miller (1972) from 274 first year university students. The women from the girls school tended to evaluate my school and my teacher lower than did the co-education women. On the pleasant-unpleasant scale within the evaluation of my school both co-educated men and women rated their schools as more pleasant than did men and women from single sex schools.

Dale (1974) found no evidence of academic superiority for either type of schools. But greater satisfaction with their school experiences and more favourable overall adjustment among co-education school students than among their counterparts in single sex schools.

In a study on boys and girls from eight co-education and single sex schools Feather (1974) found that boys in co-education schools were more satisfied with classmates and teachers than were boys in single sex schools.
Schneider and Coutts (1982) found that co-education schools are perceived by most students as having more pleasant atmosphere both in terms of attending to the social, emotional desires of their students and minimizing the necessity of control and discipline. Compared with single sex schools co-education schools were perceived by the students as more gregarious, group centred and friendly, more entertaining and enjoyable, more tolerant of non-compliance, spontaneity and impetuosity as more conducive to the development of feelings of self confidence and self respect and as reflecting less prejudiced and irrational thinking.

Furneaux (1961) reported that boys in co-educational schools display excessive nervousness and similar temperamental difficulties much frequently than other boys. Coleman (1961) suggested that co-education may have a negative impact on the academic achievement and adjustment of students because the status among peers at high school level may depend more on non-academic factors than on scholastic achievement. Coleman's thinking was based on the students from predominantly co-education high schools, to questions about their perceptions of those factors that contribute to the attainment of status among their schoolmates.

Winchel, Fenner and Shaver (1974) found that fear of success was greater among girls at a co-education school than among those at a girls only school. The subject preferences and subject choices of 1,204 pupils in 19 secondary schools were investigated by Ormerod (1975), sex linked polarization of subject preferences were more marked in co-education than in single sex schools.
Reddy (1986) study revealed that students of co-education schools had higher problems than the students of single sex schools. There was significant difference in academic adjustment of boys in co-educational schools who made higher scores than their counterparts from single sex schools. However there was no significant difference between mean scores of girls studying in co-education and single sex schools.

Pathak, Tondon and Shashi (1993) found no significant difference in vocational maturity level of high school adolescents in co-educational and single sex schools. Yadav and Saxena (1994) study on 400 students selected randomly from Government girls' school, government boys' school and government co-education school in New Delhi showed that co-education students are more immature than the students of unisex schools. Other research results contradict these conclusions, finding negative effects of mixed schools. Yadav and Saxena (1995) found that co-educational students have lesser than the students of unisex schools. There are contrasting effects of single sex and co-education on subject preference and choice of students.

The review of studies indicate that strikingly little research particularly in India, has been conducted on relative merits and demerits of co-education and single sex schools. The few studies available were conducted in western countries whose culture and tradition differ from those in India. Nevertheless, review of research does support the general contention that these two types of schools do offer contrasting environments to their students.

Ansari (2007) in his study on the adjustment problems of students in single-sex and co-education schools reviewed that – (i) there is a significant difference between adolescents from co-education and single-sex school students on their social adjustment. Also found that there is significant difference among the boys and girls from single-sex school students on their social adjustment. (ii) there is no significant difference among the boys and girls from co-education school students. (iii) there is no significant difference between adolescents of co-education and single-sex school students for religion.
Amandeep Kaur and Sweepandeep Kaur (2007) reviewed in their research that – (i) emotional adjustment and parent child relationship of adolescents are positively correlated with each other. If the parent child relation is good and healthy, then child is emotionally well adjusted. (ii) there is no significant difference between the boys and girls on their emotional adjustment. The reason for the insignificant may be that there are lots of similarities in culture, politics and environmental condition of the boys and girls.

So in the present study an attempt has been made to study the adjustment problems of boys and girls studying in single sex and co-educational institutions.

Adjustment as an important achievement means how efficiently an individual can perform his duties in different circumstances. Adjustment as a process is of major importance for psychologists, teachers and parents. (Chauhan 1978)

The research studies have revealed that the social pressures and economic conditions are the main causative factors responsible for an adolescent girl to develop and face problems during the period of adolescence; (Angelino et.al, 1956; Dorsett, 1969; Mathur, 1970; Pandey, 1973; Shantakumari, 1973; F.N. Jahan, 1974; Pimpley, 1974; Reddy, 1974; Mrinalini, 1975; Agarwal, 1976; Nair, 1978; Gupta, 1978; Chapell, 1980;).

The adolescent girls develop the problems due to their inability to adjust with the rapid and uneven physical and mental growth. The unevenness of the growth of different parts of the body and the individual variations in the rate of growth and time of the onset of puberty present many problems to them.
Society is also responsible for the development of problems among the adolescent girls. It places more and more demands on them than the time when they were children. Sometimes both the parents and teachers treat them as children and still other time as adults. Because of this, they get confusion about their role in life. As a result, they become socially isolated and thus develop problems. In the light of this cause, the present paper attempts to study the problems of adolescent girls as related to social isolation.

Social isolation is defined as one of the negative dimensions of social maturity in which an adolescent girls feels lost in the company of others, does not enjoy social gatherings, feels why to meet and interact with others, is afraid of a big mob and crowd and always feels comfortable and secure when alone. (Hemanth Kumar, 2003).

2.9.3 Parents' Education Vs Adjustment problems.

The following studies indicate that there is a positive correlation between parental educational attainment and children's adjustment.

Gupta (1978) found significant relationship between personality adjustment and parental education. Alexander and Rajendran (1992) studied influence of parents' education on students' adjustment problems. The sample consisted of 671 students selected by simple random sample technique. Mooney problem checklist was used to gather information. The results indicated that parents' educational level had definite influence upon their children's adjustment problems. Students from less educated families had more adjustment problems. Students whose parents' education was at degree level were better adjusted than students whose parents' education was up to high school level and primary levels. Students whose parents' education was up to high school level were better adjusted than students whose parents' education
was up to primary school level. This might be because as shown by Chanchalor and Sansanwal (1993) that the level of education of parents did significantly affect type of raising of children.

The socio-economic status affects the child's adjustment both directly and indirectly. Directly because it determines the social class standards the parents accept the child rearing methods they use, and indirectly because it determines and how the family live.

Prakash (1977) study revealed that higher the socio-economic status lower the anxiety among adolescent boys. However, no significant difference was observed between upper - middle strata and lower - middle strata.

Mattoo (1980) investigated the differences in the adjustment of adolescents of the three levels of socio-economic strata (high, middle and low). He found significant difference in the emotional adjustment only. The emotional adjustment of adolescents of the middle and lower strata of socio economic status though almost at par is significantly inferior to that of their counterparts of the higher strata. The difference in social adjustment is not significant.

Behera (1966) found that external controlled persons whether they were from high socio-economic status group or low did not differ in their adjustment. And internally controlled persons from advanced and backward socio-economic status families differ significantly in their adjustment scores. Subramanyam (1986) also reported that academic adjustment is positively correlated to the socio-economic status of the family.

Review of the above studies indicates that the studies on effects of gender, parental education level and income on adjustment of pupils yielded contradictory results and re-examination is warranted.
In 1873, Herbert Spencer in an article 'Psychology of the sexes' argued in terms of the theories of Charles Darwin that the intellectual attributes of women developed differently in the course of evolution. Women were thus deficient in the powers of abstract reasoning and in the most abstract of the emotions, the sentiment of justice. The prevalent views in Germany were even less favourable to women. Women were thus deficient in the powers essential for the survival of the race (Sherman, 1978). In 1906, E.L. Thorndike rejected the view that the differences between the sexes, which he had observed, could be inherent since such differences were too small to be of practical significance. Holligworth, a student and colleague of Thorndike at Teachers College, Columbia University contended that the small differences observed were due to social influences and not to biological causes and that the true intellectual potential of women would only be revealed when women received a similar education and had the right to choose equivalent careers.

Tyler (1956) in a review of research in the United States reported that in all studies girls achieved consistently higher grades than did boys. When batteries of achievement tests were used to assess achievement rather than using school grades for this purpose, girls continued to exceed boys in performance in languages while boys tended to perform better in mathematics and science. However, the differences between the sexes were small and frequently inconsistent within the same subject area; for example boys performed better on problem solving in mathematics, while girls frequently performed better on computation.

Walker (1976) has reported from the International Association for the Evaluation of Educational Achievement (I.E.A) a study on sex differences in subjects other than mathematics and science. On reading comprehension tests, boys showed lower performance than girls in a majority of countries, but the differences between the sexes were in general slight. In the cognitive literature
tests boys did less well and also showed less interest in literature. Again in the study of English as a foreign language, boys scored below the girls on both reading and listening tests. In the civic education achievement tests boys recorded higher scores than girls.

Moss (1982) reported on sex difference in achievement in mathematics in Australia across an interval of 14 years from 1964 to 1978, during which period the women's liberation movement started to have significant influence on employment opportunities and on the participation by girls in education at the upper secondary and tertiary levels. The findings from this study, which involves the use of the same tests on the two occasions and across several autonomous state educational systems within Australia, indicated at the lower secondary school level a slightly higher level of performance by girls on subjects involving elementary arithmetic and algebra and a higher level performance by boys on subtests involving advanced arithmetic and geometry. Average achievement of girls did not equal that of boys, greater gains were made by girls over the period from 1964 to 1978.

Maccoby and Jacklin (1974) concluded that girls, by adolescence, excel at tasks requiring verbal power, including both receptive and productive language, higher level verbal tasks (analogies, comprehension of difficult written material, creative writing) and lower level fluency measures. One factor underlying female superiority in some aspects of verbal ability may be perceptual speed and accuracy, since female excelled on this measure in all four studies of sex differences cited by Maccoby and Jacklin.

Girls, typically experts in English, spelling, writing and boys are in mathematical reasoning, history, geography and science (Terman and Tyler, 1954). It is a well documented fact according to Northby (1958) that girls do better in schools than boys do, at least so far as teachers rated achievement tests were concerned. Maccoby (1967) also found that girls performed better than boys at elementary and secondary school levels.
Seashore (1962) brought together a large number of validity coefficients for scholastic aptitude tests and found that groups of girls had typically produced significantly higher coefficients than had groups of boys. Special ability tests typically show feminine superiority on verbal fluency, manual dexterity, rote memory and classical aptitude (Tyler, 1965).


Griffin and Flayhart (1964) found that femininity is positively correlated with grades. Eysenck (1969) and others found that sex differences are apparent in English paper, but neither in verbal reasoning nor in mathematics the superiority of the girls in English is equalled by their superiority in reading. Sevenson (1971) enunciated that controlling for verbal intelligence, girls score better on verbal achievement tests than do boys after which they are awarded higher marks than boys for similar achievement test scores.

Cornelius and Cockburn (1978) found that there is little difference between the overall performance of boys and girls, but in individual subjects large differences do exist. Philips (1979) found in 4th grade sample correlational analysis that sex and residual reading gain was negative. Tauliatsos (1979) found that achievement of girls was higher than that of boys. Blattastein (1981) indicated that sex differences for all achievement measures existed initially and finally.
Maccoby and Jacklin (1974) concluded that sex differences were well established with three cognitive constructs: mathematical performance, verbal ability, and spatial visualizing ability. These differences appeared fairly consistently (in over 50 percent of the studies) by early adolescence.

There have been many studies of sex-related differences in mathematics (Aiken, 1972; Stafford, 1972; Fennema, 1974; Callahan and Glennon, 1975; Fennema, 1975; Fennema and Sherman, 1977; Sherman, 1977). As reported in a review of 38 studies by Fennema (1974), no significant differences were found between boys and girls' mathematical achievement before or during early elementary years. If apparent in the upper elementary and early high school years, any differences were between levels of cognitive tasks. Boys were favored when the tasks were at higher cognitive levels and girls were favored when tasks were at lower cognitive levels. Data from the National Assessment of Educational Progress (NAEP, 1975) indicate that neither sex has a clear advantage in computational ability.

The results of the studies of Fennema (1974), Maccoby and Jacklin (1974) support the earlier conclusion of male superiority in mathematics. Fennema (1977) has challenged the view that sex differences in mathematics performance exist, once differential course taking on the part of the boys and girls is accounted for. Benbow and Stanley (1980) argue that course taking alone cannot account for sex differences, because they find more boys than girls among the mathematically precocious prior to ages when mathematics course become elective. Although Benbow and Stanley argue that their data support a genetic explanation, they fail to consider experimental factors other than course taking that might explain sex differences in mathematics performance. Parsons (1981), for example, finds that parental expectations have a powerful influence on the mathematical performance of boys versus girls.
The International Association for the Evaluation of Educational Achievement (IAEEA) examined mathematics achievement in twelve high literacy countries during the 1960s (Finn, et al., 1979). Boys at all levels performed better than girls, with the exception of certain aspects like computational problems in the U.S., Sweden, and Israel. Sex differences were highest among 13 year olds in Belgium.

A major conclusion of the research was that achievement differences were primarily related to differential opportunity to learn, including equal or unequal exposure to topics, support systems for learning and appropriate models. In IAEEA surveys of six other school subjects in 21 countries including some under developed ones between 1966 and 1973 boys scored higher at all levels in total science achievement. The differences increased from 10 years through 14 years to the final secondary school year. Boys performed markedly better in physical science as compared to biology in U.K., Sweden and New Zealand. Girls outperformed boys in biology at certain ages. Girls generally outperformed boys in literature.

Despite Jacklin’s (1979) statement that ‘when the number of mathematics courses taken by high school students is partialed out, sex related differences in visual-spatial ability are mitigated or disappear’, and that if the trend for more girls to enrol in higher mathematics classes in high school continues, the actual demographic fact of sex related difference in visual-spatial ability will lessen and perhaps disappear from adolescence (and perhaps well before adolescence) on many tasks that require so called spatial skills (Maccoby and Jacklin; 1974; Wilson, et al., 1975; McGuiness and Pribran, 1978; Harris, 1978, 1979, 1981; Fennema, 1979; Mc Gee, 1979; Sherman, 1980; Bowker and Trafton, 1981; Eliot and Hauptman, 1981; Liben, 1981).

Keeves (1973) reported from I.E.A. studies of mathematics and science that in general the pattern of results was one of superior performance by male students. Biley (1981) found that male students performed significantly better
than female students on final accounting examination. The study of Nongunch and Clements (1982) revealed that males significantly out performed females on 25 of 72 occasions, but on no occasion did females significantly out perform males in spatial tasks.

Leibovich (1980) compared the scholastic achievement of 30 male and 30 female students from the 5th, 6th and 7th grades in Buenos Aires, Argentina. A battery of 35 tests covered perception, general reasoning, space, verbal ability, numerical ability, computing speed, memory and attention. A 2 way ANOVA was performed for each test to determine the influence of sex and school level on scores, school level did not significantly influence scores on perceptual tests but it did influence the other. The achievement of males was generally higher than that of the females.

Girls in U.K. generally perform as well as boys in elementary school upto 11 years and their performance dramatically drops at the secondary school level (Bristol Women’s Studies Group, 1979; Sharpe, 1976). However, Sherman (1977) observed no significant differences in the achievement of boys and girls in arithmetic but in reading tests girls achieved significantly higher scores.

Similarly, Sharma and Bhargava (1980) found that difference between the mean academic attainment of males and females was insignificant. Lynn and Steven (1983) also found no gender difference in science and mathematics achievement. Grewal and Bansbir (1987) observed that sex had no significant influence on the development of verbal reasoning.

Amalor and Suresh (1999) observed in a study on the parental influence on the educational adjustment of the higher secondary students that the educational adjustment of the students whose father and mother have higher secondary or college level education is poorer than that of those whose father and mother have only primary level of education. With increase in the
educational level of both father and mother the educational adjustment of students decreases. The reason could be that the educated parents demand a higher level of achievement in school than their uneducated counterparts.

2.9.4 Locality Vs Adjustment Problems:

The locality in which the child resides or where the school is situated is also an important variable affecting the academic achievement of the students. Chaterjee (1977) found that at V class level city pupils tend to do better than rural. Sharma and Bhargava (1980) also found that rural and urban children differed significantly in academic achievement. However, Maestas (1981) findings suggested that region did not influence student's achievement, nor did the size of the community or size of the school.

According to Benson (1985) in the lower grades, children in the rural areas and in urban slums may drop out of the school and study poorly on account of the problems of health and diet. Bokil (1956c) found that rural schools had more variation in failures. In another investigation Bokil (1956b) found that school size was not so important a factor, which affected the percentage of failures, but the size of the school influenced the number of candidates scoring less than twenty percent of total marks.

In their investigation on aspirations of urban and rural youth Sewell and Hanser (1975) reported lower educational and career aspirations for youth in rural locations, as compared with youth from urban locations. Farmer (1980), however, found no significant effect for school location on career motivation.

Educational programmes for people in rural areas are generally seen as means of compensating for and counteracting the dominance of powerful urban centres over the weaker rural community. Compared with people living in urban areas, country dwellers are in many respects at a disadvantage with
regard to essential services, including access to educational institutions and quality of education. This is particularly true for rural masses in developing countries (Bude, 1981).

According to Beedwat (1976) the intensity of incidence of under achievement was more or less uniform in the urban and rural areas. Grewal and Bansbir (1987) observed that the residential background had no significant influence on the verbal reasoning of boys and girls.

2.9.5 Religion Vs Adjustment Problems:

Rakesh (2003) Study revealed that the Hindu Adolescents had significantly more informational and normative-oriented identity style than Muslim adolescents. The Muslim adolescents had more diffused avoidance/ oriented identity style than the Hindu adolescents. Praveen Kumar Jah (2003) in his study indicate that the Hindu adolescent students scored the lowest and the Christian adolescents scored the highest and the students of Islam scored moderately in the restrictive dimension. This means that the parents’ attachment of Christian students had more discipline than the other two groups. It is also found that each group differed from the other group significantly in parental attachment when they were in childhood period.

In a study Veena Easvara Doss, Sumathi and Rekha (2005) observed no significant differences were found between first born and later born adolescents on their adjustment problems. In a study on the adjustment problems of the school going children, Usha (2007) found that – (i) there exists a significant relation between Emotional adjustment and Academic achievement and also with family acceptance of the child and achievement, (ii) No significant difference was noticed between Emotional Adjustment of Boys and Girls, (iii) Urban pupil were found superior to rural pupils in their Emotional Adjustment.
Suresh (2007) in a study observed that – (i) there is no significant difference observed in the mean scores of social adjustment for the paired sub samples. This indicates that the gender, locality, type of management are not the factors influencing the social adjustment, (ii) Significant differences in Academic Achievement were observed for the students of government and private, rural and urban pupil, (iii) A positive relationship was observed between social adjustment and academic achievement in boys and girls. The relationship indicates that the increase in social adjustment positively related to the academic achievement.

Parental Educational level and attitude is positively correlated with adolescents' adjustment. High parental educational level increases well-adjusted personality and vice-versa (Deshmukh, 2007).

2.10 Studies related to Academic Achievement:

Achievement is considered as a key factor for personal progress. The whole system of education revolves around academic achievement. Academic achievement depends on a number of variables. Certain researchers found gender, literacy level of the family and family income contribute significantly to academic achievement. A great deal of research work has been done to assess the relationship of academic achievement with adjustment.

Educated parents attempt to answer many of the questions asked by their children. They are able to correct errors of their children and guide them in their studies. A related research on the influence of college education of parents on children's college performance concluded college students whose parents had completed college were inclined to do the same thing. Dropouts beget dropouts and success begets success (Warriner, 1966).
An earlier study by Hall (1969) revealed that students belonging to lower socio-economic status experienced low academic success while those with middle socio-economic status fared better in their achievement. Kulkarni, Naidu and Arya (1969) reported that there is no appreciable relationship between score on socio-economic scale and mathematics achievement. But significant positive correlations are obtained between mathematics achievements on the one hand and occupational level of fathers as well as mothers level of education on the other.

Ramoji Rao (1971) found a tremendous impact of SES on achievement. In his study Ogunlade (1973) attempted to establish a relationship between family environment and educational attainment of some school children. He came up with the conclusion that the children of literate environment had better academic achievement than those from illiterate homes.

Touliatos, Rich and Lindholm (1978) study on 637 school children revealed that children from social class do better than children from lower social class. Kaur and Gakhar (1981) study on 96 working and 96 non working mothers belonging to different socio-economic groups whose children were studying in the 9th class, showed that social class status plays an important role in academic achievement of students i.e. higher the SES higher was the achievement. Subramanyam (1985) reported that there exists positive correlation between school attainment and SES of students. Quraishi and Bhat (1986) showed that SES had a significant effect on academic achievement. Agarwal (1999) found a statistically significant difference between the successful and unsuccessful students in respect to SES. It is evident from the above studies that there is no conclusive evidence regarding the effect of gender on academic achievement. However many studies noted positive effects of parents' educational level and income on academic achievement.
Assum and Levy (1947) found personal adjustment to be related to scholastic achievement. Even when the typical maladjusted student was above his more fortunate fellow students intellectually, he fell below the norm in achievement. The maladjusted group was comparable in academic ability to the adjusted group, however with regard to academic achievement the adjusted group was better placed.

Carter (1961) found that over achievers in contrast to under achievers were happier in school, had more self-confidence, had better morale and were more curious intellectually. Sinha (1966) studied 185 high achievers and 190 low achievers. The study revealed that high achievers had higher intelligence, better overall adjustment and moderate anxiety level compared with low achievers.

Narayana Rao (1971) studied the patterns of academic adjustment of college students. The results indicated that academic achievement was significantly related to academic adjustment.

In-Sub-Song and Hattie (1984) investigated the relation between home environment, self-concept and academic achievement. It was found and cross-validated over four samples of 2,297 Korean adolescents that self concept is a mediating variable between home environment and academic achievement. In terms of self-concept, academic self concept affected academic achievement more strongly than social self concept.

Oyedeji (1984) investigation showed that while no relationship existed between parental illiteracy and the academic performance of their children, there was a significant relationship between literacy of either or both patents and the academic performance of their children. It also showed those children whose both parents have B.A. or better, attained better academic performance than other children.
In a study on 600 students comprising of 300 boys and 300 girls studying in 8th standard, Subramanyam (1985) found high positive correlation between academic adjustment and scholastic attainment. Ahluwalia and Kalia (1987) found that high achievers have less adjustment problems on emotional and school adjustment area in comparison to low achievers. No significant difference was observed on social adjustment among these groups. Vasishtha (1990) found that higher level of school adjustment leads to higher scholastic achievement.

However the following studies yielded contradictory results.

Jain (1965) reported negligible relationship between adjustment and achievement. Singh (1981) study did not confirm the prediction that there would be a positive correlation between academic achievement and adjustment.

Shah and Kishan (1982) study showed that the relationship of academic achievement with adjustment in general was positive and significant. It had also been found that the relationship of academic achievement with adjustment towards home, school, peers, teachers and classroom trust separately was not significant. Agarwal (1999) found no significant difference between successful and failed candidates' adjustment problems.

It is evident from the review of researches that the results with regard to the influence of adjustment on academic achievement are not in agreement. Assum and Levy (1947), Carter (1961), Singh (1966), Narayana Rao (1971), In-Sub-Song and Hattie (1984) reported that adjustment and achievement are positively related. But Jain (1965), Singh (1981) and Agarwal (1999) disclose no relationship between adjustment and achievement and hence the present study is undertaken.
A habit is an automatic learned behaviour pattern that enables an individual to handle specific types of environmental situations. The students who has acquired good study habits, has developed a behaviour pattern, which enables him/her to sit down and begin working on his/her assignment with a minimum concentration. Individual study habits play a pivotal role in determining in a pupil’s academic achievement. A student’s progress or failure in the classroom depends upon several factors like interest in the subject, study facilities, own study habits and so on. Academic achievement is the achievement of the pupil during the course of his study, the standard of achievement in language, in subjects and in general knowledge.

Gordon (1941) found that the validity correlation coefficient between scores on study habits and course grades was higher when students were tested late in the semester than when tested at its beginning. Wrenn and Humber (1941) showed that the study habits are associated with scholastic achievement.

Mary Esthar (1945) analyzed the study habits of Catholic high school students by employing the Otis advanced examination and the Enrich study habits inventory. Statistically significant differences were reported between the study habits of the most successful students and between the bright and the dull students.

Carter (1948) administered a new test on 600 IX grade students. The items that discriminated significantly the 100 high achieving and the 100 low achieving pupils were included in the inventory. The test had further validity in fresh sample and it proved to be a valid predictor of grades.
Carter (1950) conducted two study method tests in 800 Educational psychology students. He compared the study habits score with the composite measures of achievement. The correlation ranged from 0.46 to 0.51. Burnett (1951) reported that the students taking how to study courses increased their cumulative grade point averages. Vedavalli (1953) found that there was no significant difference between degree and non-degree students in respect to their study habits. Carter's (1953) study method test was administered on 130 Educational Psychology students and 129 seniors in a California college preparatory high school. In Pre–instance, a correlation with mid–term test score was 0.40 and in the post instance the correlation with the senior year grade averages was 0.60.

A survey of study habits and attitudes (1953 – 67), reports that the reliability of the scales is high although some subscales give low correlation and that there is difficulty in predicting achievement especially for college or university students.

Brown and Holtzman (1956) constructed and validated a self–rating questionnaire that measured, “A student aptitude and motivation towards studying as well as his study habits.” The questionnaire was validated on a fresh sample of 219 men and 176 women. Correlation of 0.50 and 0.52 were obtained for the sample of men and women respectively. Krishnan (1956) showed that the Junior B.A, students had better study habits than senior B.A. students.

Ahmann, Smith and Glack (1958) reported that the raw scores yielded by SSHA failed to correlate, significantly with the first semester grade point averages. It made no significant contributions to the prediction of these averages when included in a battery of tests.
Norton (1959) made an investigation on the relationship of study habits and achievement in IX Grade general sciences. He found that the achievement in general sciences wasn’t associated with study habits.

Diener (1960) obtained the similarities and differences between over achieving and under achieving students and also observed that the two groups differed significantly in respect of their study habits. The over achieving males had better study habits.

Krishnamurthy and T.R.S. Rao (1969) conducted a study on 300 children in Coimbattore. They observed that there is significant correlation between study habits and academic achievement of the urban students and also there is highly significant correlation between study habits and academic achievement of sub-urban students. Sten (1970) found that the study skills are important factor in achievement of degree first year students in Mathematics.

Richard, Donald and Morely (1971) observed that the feasibility and applicability of combining psychological conditioning techniques with a study technique in terms of its effect upon the academic performance of ‘high risk’ college students. Florence and Ronald (1971), revealed that in the case of boys, the total SSHA score and attitudes subset predicted reading achievement, in the case of girls, the attitudes subset did predict a different criterion mathematics achievement.

Sinha (1972) found significant relationship between study habits and scholastic achievement. Marentic – Pozaranik (1974) found positive relationship between study habits and scholastic achievement of IX class pupils. Mc Causland and Stewart (1974) showed that academic aptitude, study skills and attitudes contribute to college success. Silverman and Riordens (1974) investigated that there was positive relationship between study habits and first semester grade of college freshman.
Girija, Bhadra and Ameerjan (1975) made a study on the relationship between study habits and academic achievement of first and final year students, of the under graduates of university of Agricultural sciences, Bangalore. The two groups differed significantly with regard to their study skills and achievement. Benerjee and Papneja (1975) found that a positive relationship of study habits of college students to their academic achievement. Lynn (1976) showed lessons on note taking and study skills are directly related to the achievement. Patel (1976) showed that there is positive correlation between study habits and achievement in school subjects. Best (1977) found that there is positive relationship between study habits and academic achievement.

Asha Bhatnagar (1980) observed 600 X class students of Delhi and found that a positive relationship between involvement in studies with their academic achievement. Tuli (1980) observed that study habits are correlates of achievement in Mathematics. Patel (1981) found that there was a positive Correlation between the study habits and their educational performance.

Chopra (1982) identified that the study habits were positively related to academic achievement. Tiwari (1982) and Shanmugasundaram (1983) indicated a positive relationship between the study habits and academic achievement. Singh (1984) found that the study habits of boys and girls differed significantly at different levels of academic achievement. Gadzella, Bernadelta and James David (1984) found that effective study skills lead to academic success. Premalatha Sarma (1986) in a study on achievement of rural girls found that Poor study habits were highly associated with under achievement.
Deb and Gravel (1990) revealed that after their investigation on B.Sc. final year Home science students, the Component of study habits is positively correlated with the academic performance of students ($r=0.39$). Students with good study habits do better academically. Therefore parents and teachers should help to promote good study habits in their children right from the beginning.

Gary Lee (1990) indicated that there were significant differences between study habits and achievement on the subjects. Ramaswamy (1990) observed that there is significant difference between high and low achievers in study habits among boys and girls. Patnaik and Basavayya (1991) reported that there was no significant relationship between study habits and achievement in mathematics. Ruth Lee (1992) conducted a study on development of a study skill to improve grades in IX and X students. It is found that development of study skills, increased student achievement.

Stella and Purushothaman (1993) showed that there is no significant difference between the study habits of under achieving boys and girls. Ekins and Judith (1993) investigated on study approaches of distance learning students and studying in a second language. He reported that command of English is related to the study approaches and skills and it is likely to lead to academic success and persistence.

Aruna (1994) concluded that scholastic achievement of the X class pupils and significant influence on their study habits. Rawat Leela (1995) showed that there was no significant difference between the study habits of boys and girls and their academic achievement. Fruntera, Lucy and Rosalind (1995) found that the students study behaviour was significantly related to their success.
Varma (1996) showed that students possessing good study habits scored higher achievement than students possessing poor study habits in English, Hindi, and Social studies. On the other hand, students having poor and good study habits scored almost equal achievement in Mathematics and General science. Narayana Koteswara (1997) showed that the study habits total score significantly influenced on reading achievement of high school students.

Gordan, Darlene (1998) found that the students having good study habits possessed good achievement. Vanden Hurl et al (1998), showed that the study habits of medical students were correlated with their academic achievement. Nair and Bindu (1998) made an attempt to find out the association between sex and discrepant achievement in six school subjects of secondary school pupils. Sex of the pupils was found to be associated with discrepant achievement in social studies and mathematics.

Lindblama – Yalamne et al (1999) showed that the student’s individual study orchestrations were related to their success. Promod (1999) conducted a study on 300 boys and girls to find whether sex difference exists in academic performance. The results showed boys and girls differed significantly in their academic performance. Boys performed better than girls. Panchanathan (1999) found that maintaining emotional balance among students through a psychologist by using auto counselling increased their academic performance. Nair (1999) conducted a study on 1758 secondary school pupils to find out familial variable, which discriminate between overachievers and underachievers in science and mathematics. His results revealed that parents income, occupation and education, home learning facility and family size discriminate over and underachievers significantly.
In a study Viswanatham (2000) found that girls do better than the boys, but there is no significant difference between rural and urban students in their achievement. Sam Sananda Raj and Sréethi. (2000) found that study habits and academic achievement on students are positively and significantly related.

Shinde (2001) found that imparting study skills training may enhance the scholastic achievement of students. Tilak Raj (2001) reported that better school environment facilitates the development of positive academic motivation and also there was not significant difference between the academic achievement of boys and girls.

Archana and Mona Sharma (2002) conducted a study on 26 V Grade children in Indore. The result found that the instructional material on making skill classification could positively influence the achievement of students on the criterion test.

Govinda Reddy (2002) found that some of the study habits areas have significant influence on achievement of DIET students. Bhaskara Rao, Somasurya Prakasa Rao and Bhuvaneswara Lakshmi (2004) have identified a positive relationship between study habits and achievement.

The findings of a study by Madankar (2004) reveals that residence, peer group, curriculum, classroom teaching and evaluation have negative and significant relationship with academic achievement, where as food and co-curricular activities have negative and not significant relationship with academic achievement of school subjects. In a study on achievement and aspirations of adolescents, Malvinder Ahuja and Sunitha Goyal (2005) observed high parental involvement leads to higher achievement and low parental involvement resulted in low achievement of adolescents. They also found that high and low parental involvement groups were found to be equal on their educational aspirations.
Rajendher Singh Pathani (2005) studied that school atmosphere, socio-emotional adjustments and home environment effect the academic achievement. Upayana Singh (2005) studied that the classroom factors play a major role in affecting the students’ academic performance.

Rajkumar Yadav (2005) studied relationship between needs and vocational preferences of adolescents and found that the students have high need achievement. The need exhibition is the lowest of all. The students have given highest preference to executive work and least preference to the jobs related to music.

Vamadevappa (2005) in a study revealed that there is a positive and significant relationship between parental involvement and academic achievement among higher primary students. Good parental involvement leads to higher academic achievement. And achievement of girls is more than the achievement of boys among high parental involvement group.

Fauziakhan, Visalapatnam and Ramanade Setty (2006) found from an observation that the Childs mental age, effort put in the learning at school and home, the educational status of the parents, parental involvement in helping the child learn at home have significant positive correlation with the Childs academic achievement and also has a multi-factors impact on it.

Dharmaraja (2007) observed from a study shows that high parental education improves the higher academic achievement than those whose parents education is below 10th class. Subrate Saha (2007) found in a study that gender shows significant difference in the academic achievement. Boys scores significantly higher than the girls on the academic achievement.
Nimavathi and Gnanadevan (2007) investigated from a study on the relationship between anxiety and academic achievement that – there is a significant relationship between the achievement and anxiety of the boys and girls of high school students. (ii) there is a significant difference between the achievement and anxiety of the government and private school students. (iii) there is a significant difference between the achievement and anxiety of the rural and urban high school students.

The above studies on study habits and academic achievement have shown that they are related variables, which influences the quality and quantity of work output. Academic achievement can be improved by creating good study habits by which student can stimulate towards study.