CHAPTER II

REVIEW OF RELATED LITERATURE

2.01 INTRODUCTION

“The literature in any field forms the foundation upon which all future work will be built. If we fail to build the foundation or knowledge provided by the review of literature, our work is likely to be shallow and native and will often duplicate work that has already done better by someone else”. Borg and Gill (1971)

Review of related research is an important step in conducting an investigation. It extends a lot of facilities to the researcher in sharpening the problem, framing the research hypotheses, reflecting the tools, identifying an appropriate research design and exploring the ground for undertaking the study.

Researchers take the advantage of the knowledge, which has accumulated in the past as a result of constant human endeavor. A careful review of the research journals, books, dissertations, and other sources of information on the problem to be investigated, is one of the important steps in the planning of any research study.

The review of related literature enables the researcher to define the limits of his/her field. The knowledge of related literature keep the researcher abreast with the work, which others have done, and thus facilitates him to state the objectives clearly and concisely, and can avoid untruthful and useless problem areas. It also gives the researcher an understanding of the research methodology, which refers to the way the study is to be conducted. It helps the researcher to know about the tools and instruments, which proved to be useful and promising in the previous studies.
As Best and Khan (1995) observe: A summary of writings of recognized authorities, and of previous research provides evidence that the researcher 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.

Thus the search for related literature is one of the most important steps in the research process. With these in view, specific studies already available on variables associated with the current study have been surveyed, and brief accounts are presented below under the following major sections:

Related studies on Psychological Needs, Learning Styles and Academic Achievement.

2.02 CLASSIFICATION OF RELATED STUDIES

For a meaningful approach to the stated problem, the investigator has presented some of the past research studies, conducted in the study area in this chapter. For convenience and for easy reference the studies reviewed have been classified into the following sub divisions.

Studies related to Psychological Needs

Studies related to Learning Styles

Studies related to Academic Achievement.
STUDIES RELATED TO PSYCHOLOGICAL NEEDS

Gillison, Standage and Skevington (2008) investigated changes in Quality of Life (QOL) immediately following the transition to secondary school. The relationship between QOL and satisfaction of the three basic psychological needs namely autonomy, competence and relatedness were explored. The findings suggested that support for the needs for autonomy and relatedness would provide the most likely route to the enhancement of student QOL over the transition to senior school.

Reiss (2009) conducted a study on the motivational reasons for low school achievement. The major finding was low achievement may be motivated by fear of failure (high need for acceptance), incuriosity (low need for cognition), lack of ambition (low need for power), spontaneity (low need for order), lack of responsibility (low need for honour), and combativeness (high need for vengeance). For junior and senior high school students, the Reiss School Motivation Profile provides a standardized assessment of the six motivational forces. Each motive for low achievement has different implications for intervention.

Civitci (2010) studied the relationships between vocational self-esteem and psychological needs in Turkish counselling students. In addition, the moderating effect of gender on the relationships between vocational self-esteem and psychological needs was investigated. Results indicated that vocational self-esteem was positively related to need for affiliation and achievement in Turkish counselling students. Vocational self-esteem was higher in female students compared to male students. There was a stronger relationship between vocational self-esteem and need for achievement in females than males.
Konarska (2010) examined the level of intensity of needs in the case of teenagers with visual impairments, compared with their able-bodied peers, as well as participation of parents in formation of these needs. The study also aimed to consider the acquired knowledge in programs of early rehabilitation and helping parents who are an indispensable link in the process of need formation for a child. This study showed connection between examined needs and parental influence on their formation. This research showed that despite great parental efforts, level of some needs was not sufficient to make building a relationship with other people easier in the future. Weak needs of achievement, low needs of autonomy, low compensation ability, and weakly developed cognitive needs, indicated that great effort of parents in order to create these needs, was not successful. Obtained results suggest that if parents do not reach intended educational aim, they need professional help.

Katz, Kaplan and Gueta (2010) had investigated the contribution of a match between teachers' support and students' expressed level of psychological needs to autonomous motivation for homework. The findings indicated that teacher support partially mediated the difference in autonomous motivation for homework between students in the two school systems. In addition, the findings suggested that students' with different level of expressed needs may perceive different levels of teachers' support, and that teachers' support might be more important for students who express higher level of needs, perceived teachers' support of psychological needs was important for students' adaptive motivation for homework, irrespective of their expressed level of needs.
Betoret and Artiga (2011) conducted a study on the relationship between student basic need satisfaction, approaches to learning, avoidance strategies, and achievement in subject-matter domains. Results showed that basic needs satisfaction, when satisfied, encouraged the use of the deep approach to learning and the decrease of student’s avoidance strategies. In contrast, when these needs were not satisfied, the use of surface approach to learning was encouraged, consequently, leading to an increase in students’ avoidance strategies and achievements. Approaches to learning and avoidance strategies play a mediator role between student psychological needs and student achievement.

Vlachopoulos and KatartziKontou (2011) conducted a study on the basic psychological needs in Physical Education Scale and reported on the modification of the basic psychological needs in Exercise Scale to assess students' psychological need fulfilment in elementary school, middle school, and high school compulsory physical education classes. The findings supported a correlated 3-factor structure of the Basic Psychological Needs in Physical Education scale (BPN-PE) with strong internal reliability for all three school grade levels. Support was also obtained for the nomological validity of the scale responses. Further, measurement invariance emerged for BPN-PE scores across boys and girls and across students who participated or not in out-of-school sports within each school grade level as well as across all three school grade levels.

Sheldon (2011) carried out a study to integrate behavioural- motive and experiential requirement perspective on psychological need and developed a two-process model of psychological needs is outlined, viewing needs as evolved functional systems that provide both (a) innate psychosocial motives that tend to
impel adaptive behavior and (b) innate experiential requirements that when met reinforce adaptive behaviour and promote mental health. It was found out that certain basic psychosocial motives are present at birth; that successful enactment of these motives supports the functioning and wellness of all humans.

Zhang, Solmon, Kosma, Carson and Gu (2011) conducted a study on need support, psychological need satisfaction, intrinsic motivation and physical activity among middle school students. The study showed that need satisfaction and intrinsic motivation mediate the relationship between need support and physical activity.

Carriera (2012) examined Japanese elementary school students' motivational orientations for learning English as a foreign language (EFL) and fundamental psychological needs from a self-determination theory perspective, exploring the relations between motivational orientations and basic psychological needs. This study also assessed whether different types of basic psychological needs are linked to motivational orientations. Results showed that psychological needs are more strongly related to intrinsic motivation than to less self-determined forms of motivation.

Diseth, Danielsen and Samdal (2012) conducted a study on teachers' support of basic psychological needs, self-efficacy, achievement goals, life satisfaction and academic achievement. Correlation analysis showed significant positive relations between all of the variables, except for the relation between need support of competence and performance goals. Theoretical and practical implications were discussed in terms of the importance of basic need support as a predictor of personal motives in educational settings as well as the students' adjustment to school and life.
Leversen, Danielsen, Birkeland and Samdal (2012) conducted a study on basic psychological need satisfaction in leisure activities and adolescents' life satisfaction. This study examined the relationship between adolescents' satisfaction of the psychological needs for competence, relatedness, and autonomy in their participation in leisure activities and their perceived life satisfaction. The findings showed that competence and relatedness satisfaction fully mediated the association between participation in activities and life satisfaction. The positive processes of psychological need satisfaction and especially the need for competence and relatedness, experienced in the leisure activity domain seemed to be beneficial for adolescents' well-being.

Vermeulen, Castelijns, Kools and Koster (2012) conducted a study to measure student teachers’ basic psychological needs and focused on five teacher education institutes in Netherlands. The results showed that the constructs of relatedness, autonomy and competence were found and could be measured using a 14-item five-point scale, based partly on the original BPNS and partly on new items that focus on different sources of perceived need-fulfilment, namely teacher education in general, the study coach and fellow students.

Wininger and Birkholz (2013) carried out a study on sources of instructional feedback, job satisfaction and basic psychological needs of college instructors. The study examined the relationships between the utilization of each source of feedback with job satisfaction and psychological needs satisfaction. Results revealed self-assessment was the most utilized source of instructional feedback, and instructor-solicited feedback from students was perceived as the most useful. Job satisfaction was significantly correlated with basic psychological needs.
Simsek and Demir (2013) studied whether adolescents' satisfaction of basic psychological needs (BPN) in life and sense of uniqueness mediate the association of parental support for BPN and happiness. The theoretical implications of the model for Self-Determination Theory (SDT) and applied considerations to improve the well-being of adolescents were discussed. Also, suggestions for future research that could further improve the understanding of the dynamic interplay between BPN, sense of uniqueness and happiness were presented.

De Haan, Soenens, Dekovic, and Prinzie (2013) conducted a study on the role of parental psychological needs and the effects of childhood aggression on parenting during adolescence. The study examined the explanatory role of satisfaction of parental psychological needs in effects of childhood aggression on various adolescent-perceived parenting behaviours in middle adolescence. Parents reported on satisfaction of their needs for autonomy, competence, and relatedness when children were in preadolescence. The finding was childhood aggression was related to decreased satisfaction of parents' needs for competence, relatedness, and autonomy in early adolescence. Satisfaction of parents' needs for relatedness and, to a lesser extent, competence affected later parenting, and satisfaction of all three needs affected changes in parenting.

Flunger, Pretsch, Schmitt and Ludwig (2013) investigated whether domain-specific explicit need strength moderated the impact of need satisfaction / dissatisfaction on the outcome achievement emotions and situational interest. Results showed that need satisfaction had greater predictive power than need strength and interaction effects appeared more consistently with the predictor perceived need
dissatisfaction. Thus, need satisfaction seemed to be the main explanatory variable for the outcome.

STUDIES RELATED TO LEARNING STYLES

Titus, Thomas, Bengadi and Mansha (1990) conducted a study to determine the learning style preferences of adolescents. The major finding was female adolescents were more concretely oriented. It was also found that slow learners were more reflective, more active and less abstract.

Joerger (1992) carried out a study on the learning styles of students, instructor and the programs of students in a selected Minnesota Community College. The study reported that male students as a group were assimilators, preferred to use their abstract conceptualization to a greater degree than did the female who as a group were divergers. The technical college females were accommodators. The male and female technical college and community college instructors were accommodators.

Soliday (1992) carried out a study to investigate the differences in preferred learning styles between vocational education and nonvocational technical education secondary students on the basis of gender. Significant differences were found to exist between the learning styles of vocational technical students.

Hyland (1993) conducted a study on the learning style preferences of Japanese students, and found out that learning style is affected by individual differences such as gender, academic and cultural background.
Gallgher (1998) studied the differences in adult and traditional age students’ learning styles at selected universities. The findings showed that Ethnicity did not emerge as a significant factor with reference to differences in learning styles.

Junko (1998) attempted to study how learning style affect students’ perception towards error correction in a foreign language class room. The study revealed that learners having different learning style preferences would behave differently in the way they perceive interact and respond to the learning environment.

Dzapasi (2002) conducted a comparative study of learning styles for blind and sighted pupils in Zimbabwe. The major objective of the study was to investigate whether there was a notable difference between the perceptual learning styles of blind and sighted children. The finding showed that there is no significance differences the learning styles of sighted and blind pupils.

Fridland (2002) conducted a study on adult learning styles and cultural background. The major objective of the study was to compare the learning style preferences of American teaches of English as a second language (ESL) and of Chinese teaches of English as a foreign language (EFL) in order to determine if cultural background is a significant factor in the distribution of learning differences in adults. The major finding of the study suggests that, adults from different cultural background approach learning in a similar fashion and that academic area of specialization is a more significant determinant of learning style preferences than culture.
Logan (2002) conducted a study on learning style preferences of students attending traditional and alternative schools in South Carolina. The major objective of the study was whether the students attending alternative school differed from students attending traditional schools in the area of noise level, responsibilities, structure, persistence and mobility. The major findings of the study were students attending alternative schools preferred more mobility in the learning environment as compared to students attending traditional schools. It was also found out that alternative school students did not differ in the areas of motivation, kinesthetic, auditory, visual learning preferences.

Johnson (2003) carried out a study on learning preferences of fifth grade students. The major objective was to investigate the learning preferences such as individualistic competitive, corporation and command learning. The major findings of the study revealed that there were no significant differences in means as function of ethnicity and geographic area relative to the four learning preferences. A significant difference between male and female means on the individualistic learning preference was also revealed.

Verma and Mishra (2003) examined the affective dimensions of learning styles of prospective secondary teachers. The study also aimed to find out the main and interaction effects of teaching aptitude and self esteem. The major finding showed there is no significant difference in orientation as a function of interaction of teaching aptitude and self esteem.
Werner (2003) studied the effect of self-awareness about learning styles on the selection of learning strategies and the development of comprehension process. Findings of the study showed that learning types (strategies) preferred according to the learning style of the subjects were not the appropriate strategy.

Alothman (2004) conducted a study on the relationship between gender and learning styles in internet based teaching. The major objective of the study was to identify the relationship between learning styles and interaction between genders. The major finding of the study was that there are obviously a multitude of factors that influence reactions to online learning and teaching.

Chauhan (2004) carried out a study on learning styles of high school students in the context of their adjustment and extroversion and introversion. The major findings of the study were, there appears a mild positive linkage of the subjects’ sex with preferences making on various learning styles. A positive linkage between locality and degree of preferences to various learning styles is also observed. There was a positive linkage held between the extroversion and introversion personality type.

Maya and Rao (2004) examined the association between learning style preferences and performance and examination of medical students. The major objective of the study was to estimate the perceptual learning style preferences (Auditory, Visual and Tactile) distribution in medical students and to study the association with the learning style preferences and university examination marks of the students. Major findings of the study were (1) No significant difference was observed either in learning style preferences scores or in university examination
marks between genders. (2) Significant negative correlation was observed between tactile preference score and the percentage marks in the university examination.

Giordano (2005) conducted a study to analyze the relationship among the learning styles, achievements, age, gender, geographical origin for first year business students at Newyork city community college. The major finding of the study showed two of the six stimuli; factor one (team, small group) and factor 5 (sound, light, intake and mobility) significantly discriminated among achievement levels.

Malathi and Malini (2006) conducted a study on learning styles of higher secondary students in Tamilnadu. The major findings were (1) To find out the learning style of higher secondary student in terms of their sex, class and type of school. (2) To find out the correlation between the learning style and the achievement of higher secondary students. The major finding was there is a high correlation between learning style and achievement which implies that the higher the achievement scores, the better was the learning style among higher secondary students.

Novak and Salzman (2006) conducted a study to determine learning style scores of second year pharmacy students before and after a problem based learning (PBL) teaching experience and to evaluate the relationships scores and demographic variables. The major finding of the study was significant changes in learning styles were noted after completing the PBL experience. These changes may reflect difficulties in adjusting to participate in a group learning experience.
Castolo and Rebusquillo (2007) conducted a study to find out whether there is a significant difference in the academic preferences of performance of students, when grouped according to selected variables such as gender, socio economic status and learning styles. The major finding of the study was their academic performances significant differed when grouped according to selected variables.

Indu and Haidy (2008) conducted study on perceptual learning styles of high school students. The major objective of the study was to find out whether there is any significant difference in the perceptual learning styles of boys and girls students in government, government aided, corporation and private schools. The major finding was the government school students showed marked difference in learning styles as compared to students of other types of schools. Most of the government schools students followed visual and auditory learning styles.

Threeton and Mark (2008) carried out a study to identify the predominant personality type of post secondary automotive technology students and examined whether there was a relationship between the participants’ predominant personality type and learning style. The finding revealed the relationship between personality and learning style in participants with both the realistic and accommodating classification.

Montemayor and Percy (2009) conducted a study to analyze learning styles of high and low academic achieving Freshman teacher education students of the University of the Cordilleras. The Study shows there is no significant difference in the learning styles between the low achieving and high achieving students.
Sriphai, Damrongpanit and Sakulku (2011) investigated the effect of learning styles, as well as compared the effect of two different variable structure models of learning styles on factors influencing Mathematics achievement. The findings were that the model including learning styles as factors influencing Mathematics achievement had a greater coefficient of determination than the one without learning styles; the effect of learning styles treated as exogenous variables had a greater coefficient of determination than learning styles treated as endogenous variables; and the changes in the regression coefficient as well as changes in relations between factors influencing Mathematics achievement showed that learning styles was a moderator variable.

Bhatti and Bart (2013) explored the influence of learning styles on scholastic achievement levels. The major findings of the study were (1) the dominant learning style was Assimilator and (2) learning style and gender influenced academic achievement.

Dunn and Honigsfeld (2013) examined whether the patterns of individual learning needs and responding to students' learning styles can result in improved academic achievement. The results showed that understanding students' learning styles is likely to (a) help teachers recognize the causes of some academic problems, and (b) lead to better planned, differentiated instruction.
STUDIES RELATED TO ACADEMIC ACHIEVEMENT

Ansari (1999) studied the adjustment and achievements of the children of working and non working mothers. Major findings of the study were: (1) The children of mothers working since their children’s birth showed better adjustment patterns than those of children of non working mothers. (2) The children of the mothers working since some time after their birth shows better adjustment patterns than those of non working mothers. (3) The children of the mothers working since sometimes after their children’s birth showed better adjustments than those of the mothers working since their birth. (4) There was no significance level of achievements, motivation of the children of the mothers working since their birth and those of the mother’s working sometime after their birth.

Kulshrestha (1999) conducted a study on family relation and scholastic achievement. The study revealed that the correlation between scholastic achievement and family relations was found to be substantially positive and significant; high achieving boys and girls and low achieving boys and girls did not differ significantly with respect to the family relations; the correlation between scholastic and achievement and family relations in the whole sample was found to be moderate positive and significant.

Moline (1999) conducted study to see the effect of parental involvement in student achievement, to provide a scholarly basis of justifying and implementing their involvement programs that may produce significant and long lasting effects on child academic performance. Research revealed that parental involvement at home and school are not equally important to children’s learning. The home environment is among the most important influences on academic achievement and child
development. Talents of high achieving students had a distinct style of interacting with their children, and created emotionally supportive home environment.

Thakkar (2003) studied academic achievement, adjustment and study habits of rural and urban students. Major findings of the study were, there was no significant relationship in academic achievement and study habits of rural and urban students with regard to adjustment in the areas of home and family, personal, emotional and total adjustment and there was positive significant difference between rural and urban students.

Gaur (2005) in her study examined the impact of home environment on the academic achievement of senior secondary school students. The study revealed that environment affects academic achievement of students in a significant way. Students living in rich home environment, were higher in their academic achievements as compared to students who were living in poor home environment

Saini (2005) conducted a study on family environment and academic achievement of adolescent children of working and non working mothers. Major findings of the study were (1) Children of working mothers were more independent than children on non-working mothers. (2) As compared to the families and adolescents of working mothers, the families and adolescent children of non working mothers have higher mean score in the area of moral and religious emphasis. (3) More control exhibit in the family of non working mothers as compared to working mothers. (4) The higher mean scores of adolescent children of working mothers indicates that, these children are academically better than those of the children of non working mothers.
Ahuja (2006) conducted a study to find the impact of parental involvement and socio economic status of the family on academic achievement of class IX students. The findings indicated that socio economic status of the family and academic achievement of students were independent of each other. Academic achievements of high, average and low parental involvement group were not significantly different. Achievement Means scores of high socio economic group was not different from that of average and low SES group. It was also observed that there was an innovation effect of SES and parental involvement on academic achievement of students.

Ryan (2007) carried out a study to find out whether counselling interventions are helping to raise achievement of adolescents in secondary education. The study revealed that counsellors working in schools have a major role to support the emotional and psychological needs of children and adolescents. The study also showed counselling interventions can raise academic achievement to a great extent.

Dhall and Sahani (2008) made an attempt to study the academic performance of elementary school children of working and non working mothers. Major findings of the study revealed working mother’s children receiving high cognitive stimulation were found to have better academic performance as compared to those receiving low cognitive stimulation. It was also observed that nonworking mother’s children with high cognitive simulation were found to have better academic performance as compared to those receiving low cognitive simulation. Children of working mothers having similar intelligence, receiving high cognitive simulation were found to exhibit, higher academic performance as compared to those receiving low cognitive stimulation. The study also showed that children of nonworking mothers having
similar intelligence receiving high cognitive stimulation were found to exhibit higher academic performance as compared to those receiving low cognitive stimulation.

Dotteror and Lowe (2011) examined links between class room context and academic achievement among early adolescence. This study tested whether school engagement mediated the link between class room context and academic achievement among fifth grade students, and whether these pathways were the same of students with previous achievement difficulties identified in third grade. Result indicated that, psychological and behavioral engagements mediated the link between class room context and academic achievement for students without previous achievement difficulties. However, for students with previous achievement difficulties, psychological and behavioral engagements did not mediate the link between class room context and academic achievement. The results suggested that improving class room quality may not be sufficient to improve student engagement and students with previous achievement difficulties.

Ahmed, van der Werf, Kuyper and Minnaert (2013) investigated the developmental trends of four academic emotions (anxiety, boredom, enjoyment and pride) and also examined whether changes in emotions are linked to the changes in students self-regulatory strategies and achievement in Mathematics. The results showed those students’ enjoyment and pride in Mathematics declined, whereas boredom increased over time. Anxiety remained relatively stable across the study period. The findings also showed that changes in positive emotions were systematically associated with changes in self-regulated learning and achievement.
Baeten Dochy and Struyven (2013) carried out a study on the effects of different learning environment on students’ motivation for learning and their achievement. The purpose of the study was to investigate the effects of different learning environments on students’ motivation for learning and achievement, while taking in to account the perceived need support. Conclusion showed the importance of gradually introducing students to case-based learning (CBL) in terms of their autonomous motivation and achievement. The study also emphasized the importance of perceived need support for students’ motivation.

Strambler, Linke and Ward (2013) examined whether academic identification mediate the association between parental socialization and academic achievement. The study found out that academic identification mediated the relationships between five forms of perceived parental specialization (future oriented, teaching oriented, efforts oriented, shame oriented and guilt oriented) and achievement. Result suggest the importance of the manner in which parental educational socialization is engaged

2.03 CRITICAL REVIEW

Fifty five studies related to the variable under study viz., Psychological Need, Learning style and Academic Achievement, were reviewed by the Investigator. Of the seventeen studies reviewed under psychological needs, a few studies reported the significance of need satisfaction on achievement of high school students. Civitci (2010) reported a strong relationship between self-esteem and achievement. Studies showed that, the influence of gender, locality, age, community and family income had influence in the psychological needs of students. (Kurian 1986)
The studies reviewed throw light on the different psychological needs and related variables. Many studies showed that when needs are approaching satisfaction, growth will be more symmetrical and realization of potentials more complete. When needs are not satisfied the achievement will be lower. (Betroet and Artiga 2011)

Many studies also proved learning styles as one of the main factors determining one’s academic achievement (Highland 1993, Malathi and Malini2006, Bhatti and Bart 2013). Studies indicated that gender is an important factor in the learning style preferences of students (Soliday 1992, Hyland 1993, Johnson 2003). Age and type of management of the schools are also factors influencing the learning style preferences of students (Indu and Haidi 2008, Hemalatha 2010).

Many studies also proved learning styles are one of the main factors determining one’s academic achievement. Dunn, Beandry and Klaves (1989) assert that, both low and average achievers earn higher scores on standardized achievement and attitude tests when they are taught through their learning styles. Most students favour to learn in particular ways with each style of learning contributing to the success in retaining what they have learnt. As such, studies carried out conclude that students retain 10% on what they read, 26% of what they hear, 30%of what they see, 50% of what they see and hear, 70% of what they say, and 90% of what they says they do something (Chauh Chong -Cheng 1988). These facts reveal that each learning style has its own strengths and weaknesses. Some students learn in many ways while others might only favour one or two. Additionally the differences in learning styles have also been reported between gifted and the under achievers, between the learning disabled and average achievers, among different types of special education students in comprehensive schools and their counterparts in vocational education and industrial
arts (Dunn and Dunn 1986). Some special students favour Kinesthetic instruction, such as experiential, active and hands-on, while many others are more auditory and visually oriented (Dunn 1991). Dunn and Dunn (1986) also believe that low achievers tend to have poor auditory memory. Although they often went to do well in school, their inability to remember information through lecture, discussion or reading causes their low achievement especially in traditional classroom environment where teachers dominate and students mostly listen or read. It is not only the low achievers they also vary among themselves. Studies also reveal that matching teaching and learning styles can significantly enhance academic achievement at the primary and secondary school levels (Smith and Renzulli, 1984). In general, a rich data have been obtained through studies on learning styles and academic achievement, however, no attempts were made to correlate psychological needs, learning styles and academic achievement. The Investigator felt the need to undertake such a study to get a better understanding of the relationship among the variables.