REVIEW OF RELATED LITERATURE
CHAPTER II

REVIEW OF RELATED LITERATURE

Review of related research literature helps in understanding the problem under study in a wider context. Best (1992) argues that ‘a familiarity with the literature in a problem area helps the students to discover what is already known, what others have attempted to find out, what methods have been promising or disappointing and what problems remain to be solved.’ A survey of related literature becomes an indispensable part of research endeavour as it enables a researcher to contribute towards the extension of research in a particular field and avoid any unnecessary duplication of work.

Some pertinent studies on various aspects relevant in context of the variables under study are presented in this chapter. The review of related literature has been categorised into the sub-sections in the following manner

2.1 Studies related to learning strategies and motivational beliefs
2.2 Studies related to course experiences
2.3 Studies related to academic achievement

2.1 STUDIES RELATED TO LEARNING STRATEGIES AND MOTIVATIONAL BELIEFS

Pintrich and De Groot (1990) examined relationship between motivational orientation, self-regulated learning and academic performance among school students. two components of motivational orientation, namely: self-efficacy and intrinsic goal orientation were found to be linked positively to cognitive engagement and performance components of self-regulated learning. Further, regression analysis revealed that. self-regulation, self-efficacy and test-anxiety emerged as the best predictors of performance. Intrinsic value though, did not have direct influence on performance but was strongly related to self-regulation and cognitive strategy use irrespective of the prior achievement level of students.

Doljanac (1994) in his research study, reported that, at the start of semester, desire for success and effort management were the strongest predictors of academic success among the followed by cognitive learning strategy of organisation and then
Vanderstoep, Pintrich and Fagerlin (1996) carried their research on college students’ knowledge, motivation, and self-regulatory learning strategies in humanities, social science, and natural science college courses. The sample included 380 college students from three different institutions. Students were given a questionnaire related to their course knowledge and also filled the self-report of their motivational beliefs and use of self-regulatory strategies both at the beginning and at the end of their semester. To inspect the differences in knowledge, motivation, and self-regulation by achievement level and discipline, ANOVA was used. The results suggested that the components of knowledge, motivation, and self-regulation do distinguish high from low achievers in social and natural science courses, but not in the humanities courses.

Wolters, Yu and Pintrich (1996) studied the relations between three goal orientations and students’ motivational beliefs and self-regulated learning in a correlational study of 434 seventh and eighth grade students. Data were collected over two time points (fall and spring) within one school year with self-report questionnaires. Regression analyses revealed that adopting a learning goal orientation and a relative ability goal orientation resulted in a generally positive pattern of motivational beliefs including adaptive levels of task value, self-efficacy, and test anxiety, as well as cognition including higher levels of cognitive strategy use, self regulation, and academic performance. Results showed that adopting an extrinsic goal orientation led to more maladaptive motivational and cognitive outcomes.

Braten and Olaussen (1998) analysed how motivational beliefs were related to learning strategy use in 176 Norwegian college students who were in the second year of their teacher training. Students’ implicit theories of intelligence, self-efficacy beliefs, and learning strategy use were assessed by self-report instruments. It was found that students who conceived of intelligence as a relatively modifiable quality reported using more learning strategies than students who had doubts about the modifiability of intelligence. Further, regression analysis and group comparisons suggested that beliefs in the
modifiability of intelligence may override the contribution of self-efficacy to students’ use of learning strategies:

In the research conducted by VanZile-Tamsen and Livingston (1999) it was found that students have a general pattern of motivational beliefs that is either positive or negative. Students with a positive motivational orientation generally have high self-efficacy and also tend to exhibit an internal locus of control, have mastery or deep approach goals rather than performance or surface goals, and value learning tasks. Such a positive motivational orientation correlates significantly with Self Regulated Strategy Use (SRSU), and this relationship is stronger for low-achieving than for high-achieving students. These findings further concluded that the positive motivational orientation is important for promoting self-regulation strategy usage for all students, but is even more important to the self-regulation strategy usage of low-achieving students.

Wolters (2000) examined the relation between students' tendency to self-regulate their level of motivation and other aspects of their self-regulated learning and academic achievement. Ninth and tenth-grade students (N = 88) responded to survey items designed to assess motivational regulation strategies. Results from a sequence of multivariate regressions indicated that students' use of motivational regulation strategies could be used to predict their use of learning strategies, effort, and classroom performance.

Chen (2002) compared the effective self-regulated learning strategies in a lecture-led concept learning environment and a hands-on computer lab learning environment for an introductory course in information systems. The subjects chosen for this study were 197 students in a business information systems course during the school years of 1999 and 2000. Findings revealed that effort regulation had a positive effect and peer learning had a negative effect on learning computer concepts.

Ozkan (2003) explored the roles of motivational beliefs namely: self-efficacy, intrinsic value, test anxiety and learning styles on tenth grade students’ achievement in biology. For this study, Motivated Strategies for Learning Questionnaire, Learning Style Inventory, and Biology Achievement Test were used for data collection. Motivated Strategies for Learning Questionnaire was adapted into Turkish context. The main study was conducted on a total of 980 tenth grade students in fall 2002-2003 semesters who
were randomly selected from 11 schools. The data obtained were analyzed by using analyses of covariance (ANCOVA) and bivariate correlations. Outcomes from the statistical analyses indicated that students’ learning styles had a significant influence on their biology achievement when their motivational beliefs were controlled. The “assimilating” learning style type was found to be most prevalent for the participants in this study. Moreover, the achievement test mean scores of assimilators in the subject of biology were found to be higher than that of students using other learning styles i.e. convergers, divergers, and accommodators. Bi-variate correlations revealed low positive correlations between each of the three components of motivational beliefs and students’ biology achievement.

Nielson (2004) conducted a study for investigating learning and study strategies of advanced music students and the way in which their self efficacy beliefs are correlated to the strategies used. Participants were first year students in Norwegian higher music education and were aged between 18-43 years. The results indicated that music students with high self-efficacy were more likely to be cognitively and metacognitively involved in trying to learn music as compared to students with low self efficacy.

Marcou and Philippou (2005) analysed motivational beliefs and self-regulated learning in relation to mathematical problem solving. The aim was to search for relationship between 5th and 6th Grade students’ motivational beliefs (self-efficacy, task value beliefs and goal orientation) and self regulated learning (use of cognitive, metacognitive and volitional strategies) and between motivational beliefs and the performance in mathematical problem solving. The data from 219 students were gathered using a self-report questionnaire and a paper and pencil test. Analysis of the data showed a significant relation between all dimensions of motivational beliefs and self-regulated learning and between self-efficacy, intrinsic goal orientation and performance in mathematical problem solving.

Anderson (2007) studied the impact of locus of control reinforcements and metacognition on mathematics achievement of undergraduate students and it was concluded that locus of control reinforcements and testing status had a significant relationship with achievement in algebra among African-American undergraduates.
whereas metacognition, gender and age did not have significant relationship with achievement in algebra among them.

Kosnin (2007) investigated self-regulated learning (SRL) to predict academic achievement among undergraduates in Malaysia. A total of 460 second year engineering undergraduates from University of Teknologi Malaysia participated in the study. Self regulated learning was measured by motivated strategies for learning questionnaire (MSLQ) while academic achievement was measured using students’ GPA. The results showed that the variables under study i.e. self regulated learning and academic achievement were related significantly to each other.

Sungur (2007) explored the contribution of motivational beliefs and use of metacognitive strategies to student’s performance under consequential and non-consequential testing. Regression analysis showed that the regulation of cognitive component of metacognition and mastery goal orientation emerged as the best predictors of students’ performance under consequential testing. On the other hand, under non-consequential testing conditions, regulation of cognition had weaker predictive efficacy as compared to mastery goal orientation and task value, which became the main reasons for students’ engagement in the task.

Tella (2007) studied the impact of motivation on academic achievement in the subject of mathematics. The participants chosen for the study were 450 secondary school students both boys and girls and were selected from ten schools of Ibadan, Nigeria. For the purpose of data collection motivation for academic preference scale (α = 0.82) was used as a measuring instrument and an achievement test in mathematics was used for measuring academic achievement in the subject. ‘t’- test and Analysis of Variance were used for data analysis. The results reported significant differences in the academic achievement of male and female students in mathematics. Male students were found to have better achievement in mathematics. The findings also showed that motivation has impact on academic achievement of secondary school students in mathematics with respect to their gender.

Artino (2008) explored the relationship between students’ motivational beliefs, their perceptions of the learning environment and their satisfaction with a self-paced,
online course enrolled with a Service academy. Undergraduates (N = 646) completed a questionnaire after providing them online training. Results from data analysis indicated that task value, self-efficacy and perceived instructional quality were significantly and positively related to each other and to students’ overall satisfaction with the self-paced online course. In addition, results from a three-step hierarchical regression revealed that task value, self-efficacy and instructional quality were significant positive predictors of students’ satisfaction from their online course.

Ho and Hau (2008) conducted a research on the integrative effects of achievement goals, strategy orientations and efforts on achievement outcomes. The variables under study were examined by taking data from 1950 seventh-grade Chinese students in Hong Kong. Participants were asked to complete separate questionnaires for Mathematics and English. Results obtained were found to be largely similar for these two subjects as there were significant and positive relationships between mastery and performance goals, between cooperative and competitive orientations, as well as between understanding and memorizing strategies. Regression analyses further revealed that goals and strategies were highly predictive of efforts invested in the study predicted achievement outcome, with strategies having lesser impact on the academic achievement.

Tang (2008) compared motivation and self-regulated science learning in high-achieving students in relation to their nation, gender and grade-level. A sample of three hundred and fifteen (n = 315) gifted students from the 10th and 12th grade from three different nations i.e. United States (n = 102), China (n = 125) and Germany (n = 88) were selected for the survey and Motivated Strategies for Learning Questionnaire was employed to obtain data regarding their motivation and self-regulation in learning Chemistry. A 3×2×2 MANOVA revealed “nation” as having the major effect out of the independent variables. The American group scored higher in most of the motivational and self-regulatory characteristics than their Chinese and German counterparts. Further results showed that for all samples gifted girls reported a higher effort goal orientation and, they used cognitive strategies in learning science more frequently when compared with boys. In addition, students’ effort goal orientation was less prominent in use among the students higher grades in all samples.
Williams (2008) conducted a research to determine connections among components of self-regulated learning: self-efficacy, goal orientation, learning strategies; and the predictive effect of these, and grade level and sex, on academic achievement among high school students with learning disabilities. The sample for the study was 135 (87 male and 48 female) high school students with learning disabilities studying in ninth grade, enrolled in two suburban high schools in southern California. The participants completed a 57-item questionnaire adapted from the Motivated Strategies Learning Questionnaire (MSLQ) and three goal orientation scales. The research outcomes indicated that high school students with learning disabilities incorporated feelings of self-efficacy, used variety of complex learning strategies, and had a focus on learning for mastery, as well performance in comparison to their normal counterparts.

Artino, Stephens and Jason (2009) examined students' motivational beliefs, negative achievement emotions as measures of academic success in an online course. Naval Academy undergraduates (N= 481) completed a survey for assessing their motivational beliefs (self-efficacy and task value) and negative achievement emotions (boredom and frustration); and other outcome variables like their use of self-regulated learning strategies (elaboration and metacognition), course satisfaction, continuing motivation, and final course grade. Results indicated that students with more adaptive profiles with high motivational beliefs and low negative achievement emotions exhibited statistically significantly higher mean scores on all outcomes variables (i.e. elaboration, metacognition, course satisfaction, continuing motivation, and final course grade) than their less-adaptive counterparts.

Briley, Thompson and Iran-Nejad (2009) conducted a research in which they studied relationships among mathematical beliefs, sources of self-regulation, and achievement for university students enrolled in remedial mathematics classes. Data was obtained from 94 students from the University of Alabama. Students completed surveys to measure mathematical beliefs and active self-regulation, dynamic self-regulation, and multiple-source self-regulation. The findings showed that students who reported better beliefs about the nature of mathematics which included: the doing and learning of mathematics, and the usefulness of mathematics were more likely to report. more frequent use of all three types of self-regulation. Their beliefs about the usefulness of mathematics and multiple-source self-regulation positively predicted mathematics achievement, while
active self-regulation strategies negatively predicted mathematics achievement. Multiple-source self-regulation was a positive predictor of academic achievement as well. The research also generalised that there exists relationship between achievement, either in mathematics or in academics, and both sophisticated mathematical beliefs and use of self-regulatory strategies.

Kesici and Erdogan (2009) investigated whether motivational beliefs and self-regulated learning strategies are significant predictors of mathematics anxiety among college students. The subscales studied under the motivation scale were intrinsic goal orientation, extrinsic goal orientation, task value, control of learning beliefs, self-efficacy for learning and performance, and test anxiety; while the subscales for the learning strategies scale were rehearsal, elaboration, organization, critical thinking, metacognitive self-regulation, time and study environment management, effort regulation, peer learning, and help-seeking. The study group was comprised of 183 college students and MSLQ was used for data collection. Results determined that college students' test anxiety and self-efficacy for learning and performance are significant predictors of college students' mathematics anxiety. In addition, college students' rehearsal and elaboration, these two components of cognitive learning strategies were the significant predictors for their mathematics anxiety.

Research conducted by Adcroft (2010) explored the relationship between motivation to learn and expectations of learning and to observe if there were differences across student groups based on their choice of degree programme and level of study. Six sub-scales were used from the Motivated Strategies for Learning Questionnaire (MSLQ), out of which two were adapted for this study, to measure motivations to learn and expectations of learning among undergraduates. A total 564 undergraduates were selected across different levels of study and from different courses. The study concluded that there is a correlation between the degree of importance and interest that students attach to their studies, their beliefs about how well they will do and their overall levels of motivation to learn. These relationships were found to be varying across different student groups.

Bostwick and Dana (2010) did a descriptive study to investigate which background demographics variables and motivation orientations in learning affect the career selection and educational aspirations for adult students participating in a post-
secondary institution. The sample consisted of 237 students who were over 18 years old participated in this survey study. The data were obtained using the motivation section of the Motivated Strategies for Learning Questionnaire (MSLQ) as the instrument for assessing students' motivation orientation in learning with regard to their career choices and educational aspirations. For analysing data, Descriptive statistics, correlations, Chi-Square, ANCOVA, ANOVAs, and Hierarchical Regression were used. The results indicated that gender was the most influential background demographic factor with regard to career choice and educational aspirations.

Glore (2010) in his study investigated undergraduate college students’ perceptions of the strategies which they considered as motivating them in while studying in web-based learning environments. A sample of 248 undergraduate college learners finished a motivation survey to identify the instructional elements perceived as influential in supporting their motivation to engage and persist in academic tasks in web-based courses. Percentage analysis of the participants’ responses indicated a preference for well organized, professional courses that enabled them to have an easy access to course material. Students also reported that having an instructor in the course who is concerned about them, valued their position and offered feedback pertaining to their performance and success encouraged them to persist in their course activities help them continue with their course. Furthermore, the participants distinguished the importance of understanding the relevance of the course materials as well as the application of the subject matter in real-world situations.

Khatib (2010) examined the use of meta-cognitive self-regulated learning, motivational beliefs and United Arab Emirates (UAE) college students’ academic performance. The study aimed to examine the predictive association of self regulated learning and motivational beliefs. The research participants included 404 college students enrolled in a variety of general education courses at Al Ain University of Science and Technology in the UAE. Data were collected by employing the Motivational Strategies for Learning Questionnaire (MSLQ). Data was further subjected to exploratory factor analysis, multiple analyses of variance (MANOVA), and regression analysis. Analysis of the data revealed that following components of the independent variables i.e. intrinsic goal orientation, self-efficacy, test anxiety, and meta-cognitive self-regulated learning strategies emerged as significant predictors of college students’ performance.
Lan, Paton and Barnard (2010) intended to ascertain whether profiles for self-regulated learning skills and strategies exist among online learners. To achieve this purpose, they administered the Online Self-Regulated Learning Questionnaire (OLSQ) consisting of 24-items with a 5-point Likert-type response format, to students enrolled in online degree programs at a large, public university located in the South western United States. The OSLQ consisted of six subscales reflecting constructs which included environment structuring, goal setting, time management, help seeking, task strategies, and self-evaluation. Latent class analyses were executed with participant subscale scores from the OSLQ. Results further indicated the presence of five, distinct profiles of self-regulated learners were identified as: super self-regulators, competent self-regulators, forethought-endorsing self-regulators, performance/reflection self-regulators, and non- or minimal self-regulators. Results also indicated that individuals differ significantly in their academic achievement according to their self-regulatory profile. Minimal and disorganized profiles of self-regulated learning were associated with poorer academic outcomes with lower GPA.

Sackes and Mesut (2010) examined the role of cognitive, metacognitive, and motivational variables in conceptual change. A total of 52 pre-service early childhood teachers participated in the study. Participants were enrolled in a science method course, which was part of their early childhood education program. All 52 participants were interviewed before and after instruction. Sixteen out of 52 participants were randomly selected based on their level of metacognition for delayed-post interviews. Two data gathering techniques i.e. self-report instrument and semi-structured interviews were used in the study. To measure participants' use of cognitive and metacognitive strategies and their motivational beliefs, the Motivated Strategies for Learning Questionnaire was used. Data obtained through interviews were analyzed by using constant comparative method of analysis to reveal participants conceptual and metacognitive profiles. Results indicated that participants who were frequent users of elaboration and organization strategies were more likely to engage in conceptual change and construct a scientific understanding of a concept. The use of metacognitive strategies facilitated use of deep-level cognitive strategies among them, which in turn promoted conceptual change. Further, results showed that motivational beliefs had direct influences on the patterns of cognitive and metacognitive strategies usage among the students. Participants with high motivational
beliefs were more likely to use cognitive and metacognitive strategies and were found to be more involved in the process conceptual change.

Shelley (2010) in her study on approaches to learning of professional and undergraduate students has reported that medical, computer application and engineering students have higher level of deep approach than management students, who are using mainly surface approach. The gender specific differences in academic achievement were also reported across the four groups of professional and undergraduate students.

Simsek and Balban (2010) compared learning strategies of successful and unsuccessful university students. The students were selected on the basis of their cumulative grand point average as a measure of their success in different disciplines of study i.e. arts, engineering science, communication and sports. Results indicated that successful students used more varied and better learning strategies in comparison to the unsuccessful students. Males were more efficient in selecting and using appropriate strategies than female students. Also, the use of learning strategies varied across the disciplines with fine arts students finding them of least importance. Out of all the components of learning strategies, metacognitive strategies were the most preferred while organisation strategies were least popular among the university students.

Taheri (2010) conducted a study to explore the effective factors influencing students' motivational beliefs. This research explored familial, individual, academic and environmental influences on motivation among the Iranian students. The data were derived by conducting a survey using a standard questionnaire with adequate validity and reliability. The participants of the study were selected from high school students in Tehran female students being 293 and males 225 in number. Sample was selected through random sampling and within the age group of 15-18 years. The data was analyzed with the help of Pearson correlations and multiple regressions. The research outcomes revealed that there is a significant relationship between the above mentioned effective factors and students' motivational beliefs. The effective factors, in the order of their importance were: environmental factors, individual factors and academic factors. It was observed that familial factors do not have a significant effect on students' motivational beliefs; however this result was different between male and female participants.
Alharbi, Paul, Henskens and Hannaford (2011) examined the different learning styles and self-regulated learning strategies used by students in a core computer science course. The Learning Styles index and Self-Regulated Learning Strategies Questionnaire were administered on selected second year students studying programming languages concepts and paradigms in a computer course. Results show that aspects of students’ preferred learning styles had a significant impact on academic performance of students in their mid-term examination. Further, study of profiles of self-regulated learning strategies used by students led to a conclusion that metacognitive strategies were the least preferred strategies among students.

Cheng (2011) explored the relationship between students’ self-regulation ability and their learning performance. For this study the construct of self-regulation ability was explained using four dimensions: learning motivation, goal setting, action control and learning strategies. Nearly 6,520 students from 20 aided secondary schools in Hong Kong participated in the questionnaire survey. To ascertain the construct validity and the reliability of the survey instrument, factor analysis and reliability test were used. Multiple regression analysis was carried out to explore the relationship among variables. The study led to the conclusion that students’ learning motivation, goal setting, action control and learning strategies were strong predictors of the learning performance among the students.

Kahraman and Sungur (2011) studied the contribution of motivational beliefs to the use of metacognitive strategy among elementary school students. Results suggested that the students who feel self efficacious in science, study the reasons of learning a subject, and put efforts in understanding the course material tend to use metacognitive learning strategies at higher levels when compared to other students.

Kesici, Baloglu and Engin (2011) investigated multivariate relationships between self-regulated learning strategies and statistical anxiety. This study was conducted on 320 Turkish college students, who responded to the Motivated Strategies for Learning Questionnaire (MSLQ) and the Statistical Anxiety Rating Scale. Of the group, 189 (59.1%) were women and 131 (40.9%) were men. Participants’ ages ranged from 18 to 33 years with a mean of 21.28 years (SD = 1.53). Bi-variate correlation coefficients showed significant relationships between the dimensions of learning strategies and statistical anxiety. After using canonical correlation analysis it
was further clarified that out of the total learning strategies, students who used more rehearsal, elaboration, organization, critical thinking, metacognitive regulation, time and study environment management, and effort regulation strategies experienced lower computational anxiety and had more positive attitude toward statistics. In addition, a combination of effort regulation and help seeking strategies was found to be associated with test anxiety.

Lynch, Douglas and Trujillo (2011) studied the motivational beliefs and learning strategies among students in the second semester of organic chemistry, who had completed 2 years of study in a college. Responses obtained after administering the Motivational Beliefs and Learning Strategies Questionnaire (MSLQ) indicated that student self-efficacy was highly correlated with academic performance in the form of their semester grades. Gender differences in academic achievement, and motivational beliefs was found. Male academic performance was associated with intrinsic motivation as well as the importance placed on the learning task. Test anxiety was negatively associated with male grades. Extrinsic motivation was negatively correlated with female grades. Responses to students’ sense of control over learning, the value of the learning task, and self-efficacy were significantly higher for males compared to females.

Radovan (2011) in his research directed towards examining the relationship between the dimensions of self-regulated learning and students’ academic success in a distance education programme. The sample of this study consisted of 319 students comprising of 83 males and 236 females. Students completed the ‘Motivated Strategies for Learning Questionnaire, responses of which were compared with number of exams written for different subjects, frequency of exams (in case of repetitions) and average course grade. The results from data analysis indicated that intrinsic and extrinsic goal orientations positively predicted the number of finished exams in contrast to the task value beliefs. Results also indicated that students who set strong goals (whether intrinsic or extrinsic) for themselves were more determined towards course completion and were more successful at passing exams.

This study was undertaken by Jahedi (2012) to explore and identify the relationship between motivational beliefs (self-efficacy, intrinsic value, test anxiety) and self-regulated strategies (cognitive strategy and self-regulation) and academic
achievement, which was determined by marks obtained by students in four tests conducted during academic year. The study tried to find out whether motivational beliefs and self-regulated learning components influenced academic achievement. Additionally, it was to be identified whether there exist gender difference in motivation and self-regulated learning components and also, the influence of parents’ education on motivation, self-regulated learning strategies and achievement of their children were studied. The data was collected from 8th standard students lying in the age group of 12 to 15 years of English medium schools in Pune city. Students responded to the Motivated Strategies for Learning Questionnaire (MSLQ). For the data analysis part, statistical techniques such as Pearson’s product moment correlation, t-test and ANOVA were used. The major findings indicated significant correlation between motivational beliefs components and self-regulated learning components of the students. The findings also revealed that all components of motivation and self-regulated learning strategies influenced academic achievement of students.

Loong (2012) compared the use of self-regulated learning strategies and math performance between home and international students in the Monash University Foundation Year (MUFY) and determine the self-regulated learning strategies that are significantly associated with their math performance. The participants of the study were 80 home students and 76 international students, where majority of the participants were in their first semester. The Learning and Study Strategies Inventory (LASSI) was used to measure students' self-regulated learning strategies, while the math performance was measured by the final score of Fundamental Mathematics taken in the pre-university program. The results of statistical analysis revealed that the pass rate of home students was significantly better than international students, and international students scored significantly higher than home students in Anxiety, Self-Testing and Time Management subscales of the LASSI. The results also revealed that Attitude and Self-Testing subscales were significant predictors of home students' math performance, while Attitude and Test Strategies subscales were significant predictors of international students' math performance.

Schwinger, Steinmayr and Spinath (2012) studied how students integrate the various motivational strategies into an individual motivational regulation profile and which kind of profiles are most adaptive with respect to enhanced effort and persistence.
Motivational regulation profiles within two samples of German high-school and college students. In Study 1, data from 231 consisting of 11th and 12th grade students were taken, while for conducting study 2, 600 college student were taken. The latent profile analysis of the responses obtained from school students revealed five subgroups of students holding different motivational regulation profiles. For the college sample, the five class solution was replicated, but with slight changes in the nature of the profiles. From both the studies it came to light that the student profiles with a higher overall level of motivational strategy use were associated with a higher level of effort and achievement. Furthermore, the comparisons between profiles indicated that profiles emphasizing mastery and/or performance approach self-talk were found to be most adaptive.

Yildirim (2012) conducted a research that aimed to examine the role of motivational beliefs in mediating the relationship among perceived teacher support, learning strategy use, and student achievement. The researcher analyzed the scores of 4,855 students enrolled in Programme for International Student Assessment mathematics and questionnaire responses questionnaire assessing motivational beliefs of 15-year-old students in Turkey using a multilevel analysis. Results indicated that perceived teacher support was positively related to learning strategy use in mathematics and that this relation was mediated through math self-efficacy, anxiety, intrinsic value, and instrumental value. Math self-efficacy and anxiety were further correlated with student achievement in Programme for International Student Assessment mathematics. In addition, the researcher also found between-school Socio Economic Status (SES) differences to be strong predictors of math self-efficacy, anxiety, and achievement.

K. Kaur and P. Kaur (2013) studied effect of motivational beliefs strategies on achievement level of college students in mathematics. Descriptive survey method was used for conducting this research. Data was collected from randomly selected 1200 male and female students from three different streams (B.A, B.Sc. and B.Com) from five different districts of Punjab namely, Ludhiana, Patiala, Jalandhar, Nawanshahar and Ropar. Further three colleges from each district were selected. Survey involved 400 students with 200 boys and 200 girls from each of the colleges. Mathematics achievement test and Motivational Strategies for Learning Questionnaire (MSLQ) were administered to assess achievement and motivational strategies among students. Results revealed that motivational beliefs components intrinsic goal orientation shows significant difference
between boys and girls students across the streams. Results showed that intrinsic motivation is positively related to a number of desired cognitive and motivational outcomes such as students’ academic performance. Also, goal orientation was found to be influencing academic achievement of the students. The study concluded that there is a significant and positive relation of motivational beliefs with achievement in mathematics.

Kingir, Tas, Gok and Vural (2013) explored the relationships among constructivist learning environment perception variables which included: personal relevance, uncertainty, shared control, critical voice, student negotiation; motivational beliefs which involved self-efficacy, intrinsic interest, goal orientation; self-regulation, and science achievement. The sample for this study comprised of 802 students studying in Grade 8 from 14 public middle schools in Turkey. Four research instruments were administered on the students, namely, Constructivist Learning Environment Survey, Goal Achievement Questionnaire, Motivated Strategies for Learning Questionnaire, and Science Achievement Test. Statistical technique of path analysis was employed for finding results. The outcome of this study revealed that one dimension of the constructivist learning environment was related with students’ intrinsic interest, goal orientation, self-efficacy, self-regulation, and science achievement. Also, self-efficacy emerged as the strongest predictor of both mastery and performance avoidance goals rather than the approach goals. Intrinsic value was found to be correlated to science achievement through its effect on self-regulation, but the relationships between self-efficacy and self-regulation and between goal orientation and science achievement were not significant.

The study by DiBenedetto and Bembenutty (2013) examined the associations between changes in students' science self-efficacy and self-regulated learning strategies and their relation to science achievement. Participants for the research were 113 undergraduates enrolled in science courses in a public college in New York. Students were administered two surveys, designed by the researcher, at the beginning and at the end of semester. Results showed that self-efficacy beliefs were changed during the time of course of the semester and that these changes positively predicted final course grades (irrespective of the gender). Also, when mother's educational level, and ethnicity, Influences of gender, ethnicity, and childhood and socialization experiences during adolescence were also examined, the results indicated that childhood and adolescent
experiences in learning science among were correlated with delay of satisfaction among males, while for females these experiences correlated with their academic achievement.

Narang and Saini (2013) undertook a research to study the impact of metacognition on academic achievement of rural adolescents in the age group of 13-16 years. The study was carried out in rural schools of Ludhiana District on a sample of 240 rural adolescents girls and boys, taken randomly from the four grades 7th, 8th, 9th and 10th grade, and belonged to middle and low socio-economic group. Metacognitive skills inventory was prepared by the researcher to assess metacognitive self-regulation. To assess the academic performance of the students, their aggregate percentage of marks obtained in the last school examination was considered. Findings revealed that the major fraction of subjects with high level of metacognition had also performed above average in academics. Further, analysis depicted that both the components of metacognition namely, knowledge of cognition and regulation of Cognition significantly contributed towards the criterion variable i.e. academic performance of the adolescents.

Wolter and Benzon (2013) in their research, tried to identify strategies that college students utilize for self-regulation and motivation. College students (N = 215) completed a self-report instrument intended to assess different regulation of motivation strategies as well as the various aspects of their motivational beliefs, use of cognitive and metacognitive learning strategies, and procrastination. Analysis revealed differences in the degree to which the students reported using the regulation of motivation strategies, while also showing them to be related to other aspects of self-regulated learning in consonance to the proposed theoretical model. Findings from a series of multiple regressions also indicated that students’ engagement in motivational regulation was dependent on their existing motivational beliefs and attitudes.

Johnson (2014) studied the relationship between motivational beliefs and academic achievement among college students. A total of 287 undergraduates enrolled in introductory-level college biology courses in south-western region of the United States, participated in this study. Participants responded to a survey consisting of items from the Motivated Strategies for Learning Questionnaire, demographic information, and academic achievement. Findings indicated that a combination of motivational constructs namely: intrinsic goals, extrinsic goals, task value, control beliefs, self-efficacy, and test anxiety
explained 68% of the variation in biology students’ achievement with self-efficacy being the strongest predictor.

Ongowo and Hungi (2014) investigated the influence of ethnicity, gender and grade level on the motivational beliefs and self-regulation in Biology. The study among 317 students in 2 co-educational schools in Nakuru (n = 155) and Siaya (n = 162) counties, Kenya was accomplished through a non-experimental quantitative method. The study used a modified version of Motivated Strategies for Learning Questionnaire (MSLQ) which had 44 items to measure motivational beliefs and self-regulation. Results obtained by conducting 4 × 2 × 2 MANOVA revealed “ethnicity” to be having the largest effect on these variables. There was a statistically significant difference in self-efficacy in Biology learning with regards to the locale of students. There were no statistically significant gender differences in motivational beliefs and self-regulation in Biology learning. However boys were found to be more self-efficacious having low test anxiety than girls. Girls had higher intrinsic value, cognitive strategy and self-regulation than boys. There were statistically significant grade level differences in favour of grade, as class 12 students had higher scores on the variables under study when compared with Grade 11 students, who had the lowest scores in all the variables under investigation.

2.2 STUDIES RELATED TO COURSE EXPERIENCES

Ramsden and Entwistle (1981) carried an empirical research to find the relationship between approaches to learning and perceived characteristics of the academic environment. This association was explored on the basis of the responses obtained from a large sample of students pursuing higher education in England. 2208 students from 66 academic departments in six contrasting disciplines from British universities and polytechnics were selected. Concurrent factor analysis conducted on the two scales i.e. Approaches to Studying Inventory and the Course Perceptions Questionnaire was done. The resulting combined factor structure indicated a strong association between students’ perceptions of a heavy academic workload and their tendency to adopt surface approach to study. However, no association was evident between students’ perceptions of other aspects of the learning environment (e.g. teaching practices etc) and the adoption of a meaning orientation or a deep approach to learning.
Research conducted by Ting (1998) intended to assess teaching quality in Hong Kong’s higher education and used students’ evaluation of their course. Study was conducted using 11,190 students for 242 sociology classes between 1994 and 1998 at the Chinese University of Hong Kong. Focus of the study was to examine the reliability of student ratings across time and the cross-sectional agreement of student ratings within and in between classes. Course Evaluation form was employed to obtain their feedback on the course and construct validation approach was used to examine the meanings of student responses on the 3 dimensions, namely: the overall satisfaction with lecturing performance, the overall satisfaction with course design, and students’ self-rated efforts in studying. Analysis of student responses (evaluations) of their course came out to be reliable. Further findings indicate a moderate to high degree of stability in student ratings between classes across time and between students within the same classes. But, the ratings on satisfaction with course design were found to be biased by their perceptions of teachers’ attributes.

Farrell, Walker, Bower and Gahan (2000) conducted a longitudinal study for assessing the course experience of 141 students enrolled in Bachelor of Education (early childhood) in the School of Early Childhood, at the Queensland University of Technology. Out of the total students, 66 were in their first year and 75 in their fourth year. These students were surveyed and were asked to give account of their life histories, course experience and perceptions of the course. Findings indicated that students in their final year were more positive about the course and expressed greater assurance about their role as emerging early childhood professionals in comparison to first year students. Also, the teaching practicum emerged as vital component of their course for achieving a balance between theory and practice.

Lizzio, Wilson and Simons (2002) studied the relationship between university students’ perceptions of the academic environment, their approaches to study, and academic outcomes. Study was carried out at both university and faculty levels. The responses of a large sample of undergraduate students coming from various disciplines were analysed using higher order path and regression analyses. The results established those students’ perceptions influence both academic achievement and satisfaction, development of key skills as learning outcomes. Their academic outcomes were both directly and indirectly affected by their approaches to study. Perceptions of heavy
workload and inappropriate assessment influenced students towards surface, and perceptions of good teaching towards deep, approaches to study. Students' perceptions of their current learning environment were a stronger predictor of learning outcomes at university than prior achievement at school.

Möller (2002) aimed to study the students' evaluation of the quality of undergraduate courses. The researcher incorporated Course Experience Questionnaire for measuring student satisfaction in Hospitality, Leisure, Sport and Tourism courses. 634 final-year undergraduate students, who were selected from 5 different universities in U.K. The quantitative analysis of data revealed that students rate the component of Skills Development as the highest rated factor. Students reported that skills such as organisation and time management, analytical skills, written communication, working with and relating to others, problem-solving, and IT skills are the most popular aspects. Students also found the course intellectually stimulating. On the other side, clarity of goals and appropriate assessment were identified as the weak aspects of their respective courses. All four subject areas groups got very similar scores and, the components pertaining to the course satisfaction were ranked in the same order: Skills Development got the highest rating, followed by Academic Environment, Teaching, and Appropriate Assessment, Clear Goals & Standards, and Appropriate Workload.

Byrne and Willis (2004) also, resorted to use the Course Experience Questionnaire (CEQ) while exploring tertiary students’ perceptions of the higher-level certification course on accounting that they had passed from the Dublin City University. Responses of 78 students were taken. Overall, results obtained from the survey indicated that the students had positive views about the course. The students considered that the workload and assessment were appropriate, and perceived that the goals and standards of the course were clear. In general, they were happy with the teaching of the course but a small number of the students also felt that their teachers did not provide enough feedback or make the course interesting. While the students believed the course developed some of the generic skills, they did not feel confident in tackling unfamiliar problems. Some of the students considered that the course did not improve their written communication skills or ability to work as a team member.
Karagiannopoulou and Christodoulides (2005) investigated the relationship between university students' perceptions regarding their academic environment, their approaches to study, and academic outcomes of the first and final year students. The data obtained from 88 first and 92 fourth year students were analysed using a path analysis. Research instruments for studying the students' perceptions of learning environment of their institution were the Course Perceptions Questionnaire (CPQ) and the Course Experience Questionnaire (CEQ). To study their approach towards study, Approaches to Studying Inventory (ASI) was used to assess students' approaches to studying. The results indicated that workload did not predict any of the studying approaches and academic outcomes. A pattern of relationships were between deep approach, perceptions of learning environment which had an impact on the learning outcomes. For the first year students, university grade was not associated with any of the independent variables but the level of satisfaction was predicted by relationships with tutors and fellows. For the fourth year students, good teaching predicted achievement both directly and indirectly through the deep approach to studying. The study findings further indicated that fourth year students' perceptions of the present learning environment were stronger predictors of academic achievement than their prior academic achievement.

The study on course experience and approaches to learning and their impact on academic achievement was conducted by Dieseth, Pallesen, Hovland and Larsen in 2006. The researchers compared scores they obtained on factors using the Course Experience Questionnaire (CEQ) with scores on a short version of the Approaches and Study Skills Inventory for Students (ASSIST) and examination grade among 206 undergraduate psychology students. Since, the primary purpose was to investigate the relationship between course experience and approaches to learning, and to examine their relative importance as predictors of academic achievement, confirmatory factor analyses and structural equation modelling were utilised in order to test the theoretically proposed structural relations between these constructs. The outcomes of this research revealed that course experience factors predicted SAL (Student’s Approaches to Learning), but no indirect or mediator effect between course experiences, approaches to learning and academic achievement was witnessed.

Richardson (2006) conducted a study to examine perceptions of academic quality and approaches to studying among students in distance education mode. This research
was carried postal survey to 3539 students taking six technology courses through distance education from the UK Open University. The Course Experience Questionnaire and the Revised Approaches to Studying Inventory were administered in and the responses from students were taken at the beginning, during the middle and at the end of their course. The results revealed that across successive levels of study, students, at the beginning of their course, were less likely to adopt a deep approach and were more likely to adopt a surface approach. Also, the students rated their courses less favourably, in particular to the workload and course materials. But, between the middle and end of a course those students were more likely to adopt a deep approach and gave more positive ratings with regard to the materials and the independence given to them.

A study on course experience, motivation, and learning strategies as indicators of evaluation of educational programme of prison inmates was conducted by Diseth, Eikeland, Manger, Hetland in 2008, with a purpose to investigate the level of experience, motivation, and learning strategies and the relationship between these variables. The participants included 534 inmates under education in Norwegian prisons. The results showed that the prison inmates were generally satisfied with the education quality and they were highly motivated, and use appropriate learning strategies. However, many of them experienced that problems such as lack of access to computer equipment and the security routines in prison interfere with their education. A structural equation modelling (SEM) analysis showed that motivational beliefs were mediators between course experience and self-regulated learning strategies.

The study by Yang (2008) focused on analysis of the types of student learning styles and their correlations with student perceptions of educational quality. The instructional model of the National Tsing-Hua University (NTHU), Taiwan, was studied, which incorporated blended-learning approach by integrating asynchronous e-learning with synchronous two-way audiovisual system and face-to-face instruction for its e-learning courses. In order to examine educational quality, researcher used the Student’s Evaluation of Educational Quality (SEEQ) survey instrument to investigate each student’s perception of the received learning quality in the following aspects: academic value, enthusiasm of their instructor(s), organization of course or clarity of goals and objectives, coverage or scope, interaction with teachers and peers, individual rapport, assignment work, and assessment methods in the form of examination or grading. The Student
Learning Style Survey was used to investigate the correlations between each student’s reported learning style and the above-mentioned aspects perceived educational quality. The findings led to the conclusion that male students had higher ratings of the educational quality than female students. There were three significant positive correlations between educational quality and three types of learning styles, including variables of participative, independent, and collaborative; and one significant negative correlation between perceived educational quality and avoidant learning style; the educational quality could be positively predicted by two SEEQ factors namely breadth of coverage, and learning / academic value.

Ozgungor (2009) studied relationship between students’ evaluation of teaching behaviours and self efficacy beliefs among university students in Turkey. The sample consisted of 586 students (369 female and 217 male) attending to different programs in the department of Education in Pamukkale University during 2007-2008 spring semesters. Course Experience Questionnaire was used to determine which aspects of teaching behaviours are more closely related to students’ self efficacy beliefs, which was assessed using Motivated Strategies for Learning Questionnaire. Results indicated that there existed a significant correlation between self efficacy and students’ evaluation and, further, the self efficacy beliefs were closely associated with good teaching and teacher’s ability to organize instruction in a clear way.

Webster and Chang (2009) conducted a study on course experiences during transition into higher education in the first year and its effects on learning outcomes among undergraduates in Hong Kong. The data were collected from 458 undergraduate students who were asked to complete a student experience questionnaire at the end of their first year of the course they had enrolled in. Students came from different faculties and included both the humanities- and science-related disciplines. The questionnaire included the dimensions of the Course Experience Questionnaire and the Study Process Questionnaire. Regression model were used to determine the predictive efficacy and examine the relationships between student perceptions on the aspects of transition experiences into first year and student learning outcomes. Findings revealed that better induction into the discipline and integration into the university were more likely to predict positive student outcomes. Students who perceived the teaching to be good and the goals and standards to be clear were also those who adopted deeper strategies to their learning. Students who felt the assessment was just measuring rote learning were also those who
adopted surface strategies. These relationships were found to be significant at the .001 level of significance.

This study by Diseth, Pallesen, Brunborg and Larsen (2010) investigated the several predictors of academic achievement which included course experience, students' approaches to learning (SAL), effort (amount of time spent on studying) and their prior academic performance determined using high school grade point average (HSGPA). The selected sample comprised of 442 first semester undergraduate psychology students. Correlation analysis showed that all of these factors were related to first semester psychology examination grade. Profile analyses showed significant mean level differences between subgroups of students. A structural equation model showed that surface and strategic approaches to learning were mediators between course experience and exam performance. This model also showed that approaches to learning, student effort and high school academic performance were independent predictors of exam performance, also when controlling for the effect of the other predictors. It was concluded that academic performance is both indirectly affected by the learning context as experienced by the students and directly affected by the students' effort, prior performance and approaches to learning.

Ning and Downing (2010) explored the reciprocal relationship between learning experience and study behaviour and tried to examine their relative impact on university students' academic performance. Participants were 396 undergraduate students from a university in Hong Kong, consisting of 191 men and 205 women. Students' learning experience and study behaviour were evaluated using the Course Experience Questionnaire (CEQ) and the Learning and Study Strategies Inventory (LASSI). The researchers developed a two-wave cross-lagged structural model to examine the reciprocal effects between learning experience and study behaviour measured over a 12-month period. The results showed that after controlling for previous academic achievement, student learning experience exerted significant influence on study behaviour, and study behaviour also exerted a significant impact on learning experience. Both constructs were significantly predictive of current academic performance. Results from this study established the linkages between learning experience and study behaviour in determining academic achievement.
Nausheen and Richardson (2010) tried to explore the relationship between motivational beliefs and course experiences. 368 postgraduate students from University of the Punjab, Lahore Pakistan, studying in five different subject areas participated in this survey study. The data were collected using the following questionnaires. A questionnaire was developed by researchers by adopting scales from the Motivated Strategies for Learning Questionnaire (MSLQ) and the Course Experiences Questionnaire (CEQ) to measure the motivational beliefs and course experiences of students. Academic achievement was measured by taking the achievement score in final examination of the course. The results of the study indicated that students’ achievement scores were positively correlated with their self-efficacy for learning and performance and negatively correlated with test anxiety; whereas the course experience factor and learning community were significantly correlated with achievement score. Significant correlations were also found among almost all motivational beliefs and course experience factors.

This research by Sampson, Leonard, Ballenger and Coleman (2010) was completed at a regional university to determine students’ course satisfaction pursuing online courses in a certification program in educational leadership department. Texas Regional University by carrying a survey on 20 students of 2005 batch and 36 from 2009 batch. This survey was based on seven course components, namely: instruction, communication, assessment, leadership, teamwork, professionalism, and respect/diversity. The study was conducted on 20 students from first batch in 2005 with a hybrid format of course delivery (i.e. face-to-face and online). Students showed a positive satisfaction with overall means between 3.79 and 4.48 on a five point Likert-scale with ‘5’ meaning strong agreement with satisfaction with the course. The lowest area of satisfaction was the category of ‘cohort teamwork’ (M = 3.79) and the highest area of satisfaction was the category of ‘assessment’ (M = 4.48). The group of 36 students from 2009 batch taught with a totally online delivery format completed the survey and showed an overall positive satisfaction with overall means between 3.77 and 4.30 on a five point Likert-scale with a 5 meaning strong agreement with satisfaction. The lowest area of satisfaction was the category of teamwork (M = 3.77) and the highest area of satisfaction was the category of instruction (M = 4.30).

Armstrong (2011) conducted a detailed study on undergraduate students’ experiences and perceptions of online courses based on interviews, observations, and
online focus groups. The sample consisted of 16 undergraduate students from North Carolina University. Student experiences were assessed on the following aspects: (a) motivational characteristics in the learners during online classes, (b) positive and negative aspects of online courses as experienced by them, (c) what instructors can do for improving the teaching quality of online courses, and (d) how undergraduate students’ perceptions of the online learning environment and the tools used affected the selection of their approach to learning. Data analysis from the student responses yielded five main findings across the research questions. The first finding emphasized the role of communication in shaping students’ perceptions and selection of approach to learning. Students enrolled in online courses lacked interaction with the teachers and thus they adopted surface approach. The second finding revealed that participants did not perceive the technology to be possessing negative aspects hindering their learning, but the students opined that shortcomings arise due to inefficient use and implementation of technology. Students were of the view that the tools used were not as significant as the quality of communication and that the value assigned by students to any tool is prejudiced by the manner the tool is implemented. Findings from students’ responses suggested that course organization is a key to student learning and academic success. Also, students’ approaches to learning were found to be shaped by both the structure of the learning environment and the nature of assessments used in the online environment. Students’ perceptions of online learning were perceived as less academically rigorous than their experiences in face-to-face education. The study further showed that students use non academic resources to locate information rather than the university library.

This study by Price, Richardson, Robinson, Ding, Sun and Han (2011) investigated the experiences and the approaches to studying of University students in China. A sample of 356 students completed both the Course Experience Questionnaire (CEQ) and the Revised Approaches to Studying Inventory (RASI). Factor analysis of their responses to the CEQ yielded two factors concerned with student support and course demands and the responses to RASI, after conducting factor analysis again yielded two factors a deep or strategic approach and a surface approach. Students who rated their courses positively in terms of student support were more likely to adopt a deep/strategic approach which also meant that those who rated their courses positively in terms of course demands were less likely to adopt a surface approach. In conclusion, it was
observed that the Chinese students’ perceptions and approaches to studying were similar to those of western students, though with some specific differences.

Ning and Downing (2011) carried a research for exploring interrelationship between student learning experience and study behaviour. This interrelationship between student learning experiences and study behaviour was explored in order to explain academic achievement. The participants included 541 final year students from a university in Hong Kong. Students’ learning experiences and study behaviour were assessed using the Course Experience Questionnaire and study behaviour was ascertained using the Learning and Study Strategies Inventory. Structural equation modelling was used to find the results. Findings from the analysis demonstrated that different learning experience factors had differential influences (of varying degree) on student study behaviour. Also, the students’ perception of teaching quality and generic skills development were found to be most significant in terms of motivation and attitude towards study thus these were most predictive of academic performance.

Research by Ullah, Richardson and Hafeez (2011) examined study approaches and perceptions of academic environment among university students in Pakistan. A survey of about 900 students at two different universities was done. The students’ approaches to studying and perceptions of their courses were examined using the course experience questionnaire (CEQ). Factor analysis provided an evidence for a deep approach, a surface approach and two aspects of a strategic approach for studying approaches towards studying. The students’ perceptions of their courses were based upon the instructional practices, the acquisition of generic skills, the appropriateness of assessment and of their workload, and the availability of learning resources. A higher-order analysis revealed two broad dimensions of the student experience among university students: positive and negative. Students who had positive perceptions tended to adopt a deep approach, to prefer courses, teaching and assessment that supported their understanding and to be engaged and reliable in their studies. However, students who had negative perceptions tended to adopt a surface approach and to prefer courses, teaching and assessment that reinforced this approach through the bare transmission of information.
The research study by Baeten, Dochy and Struyven (2012) investigated students’ perceptions and achievement in four learning environments that differed in the degree to which case-based and lecture-based teaching were implemented (either separately or combined). The varying students’ motivational and learning profiles in relation to the learning environment were studied. The study included 1098 first-year student teachers who took a course on child development in a University in Belgium, Germany. Results demonstrated that self-motivated learners using deep learning strategy were significantly more positive about each type of learning environment than those who were less motivated and had less evidence of using deep-learning strategies. However, with regard to achievement, student profiles did not differ. Instead, the learning environment proved to be of significant influence on the learner’s motivational profile and learning strategy use. Students in a gradually implemented case-based setting and a completely lecture-based setting scored significantly higher than students in a completely case-based setting.

Dorman (2012) conducted a study linking university students' perceptions of their classroom environment and course experiences in one Australian university. The objective of this research was to provide reliable and valid indicators of crucial aspects of students’ course experiences and ratings of overall satisfaction. A sample of 495 students was asked to respond using the College and University Classroom Environment Inventory (CUCEI) and the Course Experience Questionnaire (CEQ). Multilevel regression analyses revealed that several CUCEI scales were significant predictors of CEQ scales. Overall, task orientation was the most powerful predictor of all five CEQ scales: clear goals and standards, generic skills, good teaching, appropriate workload and appropriate assessment. Improvements in the classroom environment were linked to more positive course experiences which are being taken as indicators of institutional performance.

Scarboro (2012) did his study on student perception of good teaching and identifying the factors that helped in their learning. Responses from 762 students, from 30 different departments from a private university in Istanbul. Students were asked to provide their overall assessment of the learning environment by filling a questionnaire that included twenty-seven items asking students to indicate if selected faculty and peer characteristics, teaching techniques, pedagogical tools such as overhead projectors, and learning support facilities, such as the library, computer and science laboratories, and other factors supported their learning. Percentage analysis and ranks were used to study
the student perceptions. Results revealed that those faculty who themselves are active researchers, who assign heavy out of class homework, especially those who assign student research activities, and those faculty who are available for informal interaction with their students emerged as the as influential in student learning.

Sun and Richardson (2012) did a comparative study on perceptions of quality and approaches to studying in higher education among the Chinese and British students. For conducting the study, postgraduate students at six British business schools were considered. The sample comprised of 134 British students and 207 students from China, who were enrolled in 1-year postgraduate programmes at these British business schools. The students completed the Course Experience Questionnaire (CEQ) and the Revised Approaches to Studying Inventory (RASI). Factor analysis conducted on the both groups yielded the same factor structure on both instruments. The findings showed that there were no significant differences in the scores on the CEQ among British and Chinese students. Though, on the RASI, the British students produced higher scores on deep approach and strategic approach. In conclusion, when British and mainland students were compared within the same educational context, their perceptions and approaches to studying showed the same underlying constructs, but within the same context, the Chinese students were less likely to exhibit deep or strategic approaches to studying.

Study conducted by Webster and Min (2012) investigated first-year Chinese students’ experiences of transition from school to university and induction into their discipline in relation to perceived course experiences, approaches to study and achievement of goals among students in Hong Kong. Investigation of the survey data obtained in this study after subjection to analysis, indicated that even though students reported transition difficulties across the disciplines, these were not linked to perceptions of the course, approaches to study or achievement of goals. Students who reported good understanding of their discipline were the ones who achieved their goals. These students also had a good course experience and adopted deeper study approaches. These results suggested that rather than focusing mainly on tackling students' transition difficulties, efforts should be directed towards promoting a positive first-year experience for the university students. Further, their goals achievement should be oriented towards constructing a facilitative learning environment.
Owston, York and Murtha (2013) examined in their study the relationship between student perceptions in blended learning courses and their course achievement. The research was conducted at York University, Canada. Student perceptions (N=577) were assessed using Blended Learning Survey (designed by the researchers) in the four areas of importance according to the university: overall satisfaction with blended learning, student convenience afforded, sense of engagement in their blended course, and views on learning outcomes. Final course grade was the dependent variable for this study with cumulative grade point average was the covariate in an ANCOVA design. Results demonstrate a considerably strong relationship between students’ perceptions and final course grades. In comparison with low achieving students, high achievers were the most satisfied with their blended course, were likely to pursue further study in the same mode, and preferred the blended format more over fully face-to-face or online. High achievers were of the view that blended courses are more convenient, more engaging, and they felt that they learn important course concepts in a better way than in other traditional face-to-face courses they had previously taken.

Karagiannopoulou and Milienos (2014) examined the relationship between students’ experiences of the teaching–learning environment and their approaches to learning, and the effects of these variables on academic achievement. The Approaches and Study Skills Inventory for Students (ASSIST) and Experiences of Teaching and Learning Questionnaire (ETLQ) were used to assess approaches to learning and student’s experiences of the teaching–learning environment, respectively. The study was conducted on 144 Greek undergraduates. For data analysis, two three-stage models were tested with structural equation modelling techniques. These two constructs were then used as either first- or second-stage variables within the path analysis. The deep approach showed no visible influence on academic achievement in neither there were any direct effects of experiences of the teaching–learning environment on it. The indirect effects of these experiences on achievement, acting through the strategic and the surface approaches, were found to be related to two aspects of the teaching–learning environment, namely: congruence and coherence in course organisation, and integrative learning and critical thinking. The reciprocal relation between approaches to learning and experiences of the teaching–learning environment was demonstrated. The indirect effect of experiences of the teaching–learning environment on achievement was also found in the study.
Ning and Downing (2014) conducted a research on profile analysis of university students’ self-regulated learning strategies. They studied the students’ course experiences and also used self-reported cognitive, metacognitive, and behavioural strategy measures. Data were obtained from 828 final-year students from a university in Hong Kong. Multinomial logistic regression analysis indicated that course experience factors (teaching quality, clear goals and standards, appropriate assessment and workload) were significant predictors of Self regulated learning profile of the students. Latent profile analysis (LPA) performed on the obtained data categorised the students into four distinct types with differential self-regulated learning strategy orientations: competent self-regulated learners, cognitive-oriented self-regulated learners, behavioural-oriented self-regulated learners and minimal self-regulated learners. Students in the competent SRL profile demonstrated the highest levels of academic self-concept, motivation, attitude, and the lowest level of test anxiety and best academic performance.

This study conducted by Yin, Lu and Wang (2014) examined Chinese university students’ course experience and its influence on their approaches to learning. A total of 2529 students enrolled in 15 full-time regular universities were taken for the study who responded to the course experience questionnaire. Results obtained from student responses indicated that students had different course experiences across the discipline of the study. Undergraduate teaching was characterised by the dominance of developing students’ generic skills, but a lack of emphasis on students’ independence was also reported. The study revealed some positive influences of university teaching on students’ approaches to learning, but an enhanced effort from the course instructors and commitment to teaching was found to facilitate a surface rather than a deep approach to learning.

2.3 STUDIES RELATED TO ACADEMIC ACHIEVEMENT

Diseth (2002) conducted a research for exploring the relationship between intelligence, approaches to learning and academic achievement. Three different tests for measuring intelligence and the Approaches and Study Skills Inventory for Students were administered on 89 undergraduate students enrolled in a psychology course in Norway. For finding the relation, factor analysis was carried on the intelligence tests that yielded a single underlying construct ‘general intelligence’. The findings revealed no significant
relationship between general intelligence and approaches to learning. The scores obtained from WAIS vocabulary test of intelligence and the surface approach to learning was found to be negatively correlated. But, interestingly, WAIS vocabulary test of intelligence and the surface approach to learning predicted academic achievement. A curvilinear relationship between surface approach and academic achievement was observed. Furthermore, multiple regression analysis showed interaction effects between deep-strategic and surface-strategic approaches to learning as predictors of academic achievement.

Bernardo (2003) studied whether approaches to learning influences academic achievement. This study was conducted on the Filipino college students. The Learning Process Questionnaire (LPQ) was administered to assess approaches to learning. The results indicated that the attained scores on Deep and Achieving subscale of the LPQ were significantly related to academic achievement, when the effects of school ability and prior academic achievement were controlled. The relationship between the LPQ scale scores and academic achievement followed a similar pattern in both male and female Filipino students.

Research study by Yip (2007) investigated the differences between high and low academic achieving Hong Kong university students in relation to their use of different learning and study strategies. For undertaking this study, a sample of 100 university students who pursued their degrees using the distance-learning mode were taken. The students completed a revised and adapted Chinese form of the Learning and Study Strategies Inventory (LASSI). Result outcomes confirmed that there were significant differences between the different study strategies of university students having high academic achievement and the students having low academic achievement, even in a distance-learning context. Further analysis suggested that two components within the model of strategic learning namely, will and self-regulation components were the strategies that differentiated high academic achieving students from low academic achieving students.

Chamorro and Adrian (2008) conducted the study on personality, intelligence and approaches to learning as predictors of academic performance. A sample of 158 undergraduate students from University College of London, participated in the study. The
results indicated significant relationship of intelligence with academic achievement and learning approaches.

Kamaruddin, Zainal and Aminuddin (2009) carried a research on how the learning environment affects learning outcomes of school students. A sample of 370 students was randomly selected students was taken from a population of students in Bumiputera, Malaysia. Data analysis was completed using descriptive statistics and Product Moment Correlation. The outcomes from the study revealed that students identified four components that contributed to their academic performance, namely: facilities provided, housing environment, parents’ motivation, and school and teacher-related factors. Housing environment and parent’s motivation component was the one which highest assessment while facilities provided at home got the least recommendation from the student. The results also showed that only two components of the learning environment were positively related with students' academic performance that is housing environment and school/teacher involvement.

Karnilova (2009) undertook a study to investigate the relationship of the predictive value of subjective evaluation of intelligence and academic self-concept with academic achievement of college students. Likert type instrument and group estimation of intelligence was employed on 300 undergraduate students of Moscow state university in Russia for the data collection. Academic achievement was taken as the score on grade point average of three semesters of the students. The findings indicated positive and significant relationship of general intelligence and verbal intelligence with academic achievement of students.

Sinha and Shrivastava (2009) examined the relation between self-regulation competencies and psychological needs and strength of association with academic achievement among professional students. Sample consisted of 170 engineering students from Uttar Pradesh Standardised scales were used to assess self-regulation competency and psychological need, whereas students’ Cumulative Grade Point Average (CGPA) in a semester was the measure of academic achievement. The data were analyzed using correlation technique, multiple regression analysis, and analysis of variance. The results showed a positive relationship among self-regulation, psychological needs, and academic
achievement of the students. Achievement drive, self-control, and autonomy emerged as significant predictors of academic achievement.

Li, Chen and Dwanmu (2010) in their study examined the students’ learning experience by investigating the differences between Chinese and non-Chinese cultural groups. This study tried to identify the key predictors of students’ academic achievement. Data analysis was done by using multiple regression analysis. The results suggested that the perceived importance academic success to family, english writing ability of the student and social communication with their counterparts are significant predictors for all international students (Chinese as well as other cultural groups). From all students, as a leading group, the Chinese students showed some distinctive characteristics. For instance, Chinese students who studied abroad for the first time were likely to perform better than the fellow students who had studied overseas before. A less active learning strategy use was prevalent among Chinese students in comparison to others but no evidence was found that this affected their academic achievement in a negative manner.

Akhtar and Shamsa (2011) examined the effect of peer and parent pressure on the academic achievement of university students. The male and female post-graduate university students formed the population for this study. A representative sample of 156 students from the University of Islamabad was selected by using cluster sampling technique. Selected students were from three departments of university (Business Administration, Computer Science and Economics). An opinionnaire was used to track out the opinions of the students regarding peer and parent pressure that they experience. The findings of the study suggested that the parent pressure influenced academic achievement positively while peer pressure had a negative effect on the academic achievement of students and this was evident especially among female university students. No effect of peer and parent pressure was found on the achievement male students. Also, the parent’s pressure was observed as a contributor in the academic achievement among students pursuing Business Administration.

Asthana (2011) conducted a study on a sample of 300 students consisting 150 male and 150 female students of secondary education from Varanasi, with a view to find out relation of mental ability with scholastic achievement. Data was collected by using a verbal test of intelligence developed by the researchers to measure mental ability and
scholastic achievement was taken on the basis of an average of marks obtained in three previous annual examinations. The results revealed that mental ability was positively and significantly related to scholastic achievement.

The study conducted by Bai (2011) intended to examine anxiety proneness and emotional intelligence in relation to academic achievement of pre-university students. Study being an exploratory student performance in examination was considered seriously to examine if there is any influence of anxiety proneness and emotional intelligence on their academic achievement or not. The study involved 500 Pre-University students selected from Bangalore Urban and Rural area who were studying in Science, Arts and Commerce stream by using stratified random sampling procedure. The study revealed that, Arts, Science and Commerce students of Pre University College (PUC) have significant difference in academic achievement, anxiety proneness and emotional intelligence and its dimensions Arts and Science of PUC have significant difference in anxiety proneness and emotional intelligence. Commerce and Science pre-University students showed significant difference in anxiety proneness and emotional intelligence.

Farooq, Chaudhary, Shafiq and Berhanu (2011) conducted a study probing factors affecting students’ quality of academic performance in an urban city of Pakistan. The respondents for this study were 600 students in grade X, consisting 300 males and 300 females. This study was accomplished using a survey method and a questionnaire was constructed for information gathering about different factors relating to academic performance of students. The academic performance was measured by the result of their grade IX annual examination. Statistical techniques like t-test and ANOVA were applied to examine the effect of different factors on students’ academic achievement. It was found that females performed better than the male students. The results of the study further revealed that socio-economic status (SES) and parents’ education have a significant effect on students’ overall academic achievement as well as achievement in the subjects of Mathematics and English. The high and average socio-economic level affected the academic performance more than the lower level socio-economic status. Result was very interesting as parents’ education generally otherwise is considered to be a better contributor than their occupation in relation to their child’s academic performance at school.
Hassanbeigi, Askari, Nakhjavanic, Shirkhodad, Barzegar, Mozayyan, and Fallahzadeh (2011) investigated the relationship between different study skills and academic performance of university students. Sample consisting of total of 179 male and female junior and senior medical and dental students participated in the study. Study Skills Assessment Questionnaire was used to assess study skills. The content validity of this questionnaire was approved by psychologists and faculty members of Shahid Sadoughi University of Medical Sciences in Iran. The data collected were further subjected to statistical analysis using Kruskal-Wallis test. The findings of this study indicated that the study skills scores of university students with a higher grade point average (GPA of 15 or more out of 20), were statistically higher than that of those students with a lower GPA (of less than 15 out of 20) in all of the skills of time management and procrastination at .01 level of significance, concentration and memory at .01 level of significance, study aids and note taking at .05 level of significance, test strategies and test anxiety at .01 level of significance, organizing and processing information at .01 level of significance, motivation and attitude at .05 level of significance, and reading and selecting the main idea at .01 level of significance. The study suggested that teaching of study skills to university students played an important role in improvement of students’ academic performance.

Hussain, Khan, Muhammad, Latif, Amin and Sibtain (2012) conducted a comparative study on academic achievement of science and arts students studying a compulsory subject at secondary level. The study was conducted using a descriptive method of research. The sample comprised of 60 students. The 30 students from boys school (15 science and 15 Arts) and 30 students from Girls schools (15 science and 15 arts) were selected on random basis for the purpose of research. The scores on achievement of the students were obtained from their respective results in terminal examination. The statistical techniques like Mean, S.D., variance and ‘t’ ratio were calculated for analysis of data. The findings revealed that female students pursuing science stream had better academic achievement than the female students enrolled in arts. Similarly, male students pursuing science showed better results than males pursuing arts. Gender differences were witnessed in academic achievement among students, with females outperforming males in both arts and science streams.
Hsieh, Sullivan, Sass and Guerra (2012) examined whether the relationship between test anxiety and final course grades was mediated by personal control, self-efficacy, goal orientation, coping strategies, and self-regulation. Researchers used structural equation modelling for the purpose of data analysis. Participants for this study were 297 undergraduate engineering students who took algebra as a subject designed for their course. Data analyses revealed that psychological variables namely: personal control, self-efficacy, goal orientation, coping strategies, and self-regulation played major roles in predicting students’ grades, as all the structural coefficients and $R^2$ statistics were found to be statistically significant.

Huie, Winsler and Kitsantas (2012) examined whether motivation (self-efficacy goal orientation) and self-regulated learning (help-seeking, metacognitive self-regulation, time management and effort regulation) are related to potential achievement differences between employed and unemployed students, and whether reduction in hours worked over time translates to better performance. A total of 591 US first-year college students completed surveys at the beginning of their first semester and 243 completed a similar survey at the end of the term. Work status and student grade point average (GPA) were also obtained. Results revealed that the number of hours worked was negatively associated with performance, and reducing the number of hours worked over the first year was associated with increased academic performance. Working students who were able to maintain a high GPA had stronger time management skills and effort regulation compared to working students receiving lower grades. Finally, the results showed that numerous aspects of motivation and self-regulation declined in students over the first semester. Further, it was suggested that universities needed to offer programmes to help all students maintain strong motivational profiles.

Mokashi, Yadav and Khari (2012) assessed the gender differences on anxiety and academic achievement, the study was conducted on a purposively selected sample of 330 residential children studying in VIII, IX and X standards. Anxiety was measured by using Cattel’s Anxiety Scale and marks obtained in the previous final examination were considered for assessing academic achievement. Results obtained from data analysis indicated that residential children were high in their anxiety and also had higher academic achievement. Boys were found to be having significantly higher anxiety while girls were higher in academic achievement. Results also reported no significant difference
between both boys and girls of VIII, IX and X standards on their anxiety. Also, there was a significant difference on their academic achievement. A significant negative relationship between lack of self-sentiment, guilt-proneness and overall anxiety with the academic achievement of children was reported.

Ahmar and Anwar (2013) examined the effects of gender and socio-economic status on academic achievement of higher secondary school students. The sample comprised of 102 males and 98 females in age group of 15 to 19 years from five higher secondary schools of Lucknow city Uttar Pradesh (India). Socio economic status scale was used for data collection, while the total mark obtained by the students in the previous class i.e. standard X was used as an achievement criteria. Descriptive statistics like mean (M), standard deviation (S.D), standard error of the mean (S.E.M) and t-test were used. This study showed that gender does not influence the achievement in science subject at higher secondary school (Standard -XI) level. Also the result of this study showed the difference between high and low socio-economic status groups. It was established that the academic achievement was influenced by the socio-economic status and those who belonged to high socio-economic status showed better performance in academics.

Aurah (2013) investigated the effect of self-efficacy beliefs and metacognition on Academic Performance among high school students using a mixed method approach. A total of 2,138 students studying in 12th grade were selected from 17 schools in Nigeria and participated in thus study. The study was conducted using mixed-method that consisted of a quasi-experimental approach and in-depth interviews. Quantitative data were collected by administering self efficacy questionnaire (SEQ), biology ability test (BAT), genetics problem solving test (GPST) and metacognitive prompting questionnaire (MPQ). Qualitative data were collected using in-depth interviews. Quantitative data were analysed using both descriptive and inferential statistics (hierarchical linear regression and factorial ANOVA). Qualitative data obtained were coded, categorized and reported theoretically. Regression analysis pointed self-efficacy as a strong predictor of academic performance. Results from ANOVA analysis displayed statistically significant differences in metacognition between groups as reflected by their metacognitive prompting scores. Gender differences were also noticed with female students outperforming male students on the genetics problem solving test. Following quantitative analysis, the qualitative data
suggested that highly efficacious students did better on the tests than less efficacious students.

Chamundeswari (2013) conducted a study to investigate emotional intelligence and academic achievement of students studying in higher secondary level. Random sampling technique was used to select 321 students from different boards (106 state, 110, matriculation and 105 central board students), from the target population. The standardised tool i.e. Emotional Intelligence Scale was used to assess the emotional intelligence and the marks obtained in the subject of Science were taken from their half yearly performance. The data collected were subjected to statistical analysis, namely, mean, standard deviation, t-test, ‘F’- ratio, Karl Pearson’s Product Moment Correlation Co-efficient ‘r’. Results show a positive and significant correlation between emotional intelligence and academic achievement among the students. Further the students belonging to the central board schools have a higher level of emotional intelligence when compared to students in state board but did not differ with students in matriculation board schools at the higher secondary level. Similarly, students belonging to central board schools are found to perform better in academics compared to students in state and matriculation board schools at the higher secondary level.

Fayombo (2013) investigated the relationships between the active learning strategies (which included discussion, video clips, game show, role-play, five minute paper, clarification pauses, and small group interactions) and academic achievement among undergraduate students in the University of the West Indies (UWI), Barbados. A total of 158 students pursuing psychology course participated in the study. Results revealed statistically significant and positive correlations between active learning strategies and students’ academic achievement. Furthermore, the active learning strategies contributed 22% to the variance accounted for in academic achievement and this was found to be statistically significant at .05 level. Additionally, among the active learning strategies, group work emerged as the best active learning strategy as it showed the highest correlation with the students’ academic achievement.

The study on gender and academic success in online learning environment was conducted by Kupczynski, L., Brown, M., Holland, G. and Uriegas, B. in the year 2014. The objective of this research was to explore the relationship between the final grade
received in a distance learning course and the student characteristic of gender. The sample comprised of 959 education majors at a regional university in Texas, U.S. Analysis of variance was conducted to investigate the main effect of gender on academic achievement. The findings revealed that there were significant gender differences in online course achievement between male and female students for the group of students with lower overall GPAs, while for the students who had overall middle-level and higher overall GPAs, no significant gender differences existed.

2.4 OVERVIEW OF RELATED LITERATURE

From the literature review, it is evident that motivational beliefs and learning strategies play a significant role in student’s academic achievement and performance in higher education. Some of the pertinent studies related to learning strategies, motivational beliefs, course experiences and academic achievement among students are summarised as under:

The role of self-regulated learning strategies in academic success among students was highlighted in the studies done by Radovan (2011), Lan et.al. (2010), Kosnin (2007) and Sungur (2007), and these studies reported a significant relationship between use of learning strategies and academic achievement among students. Simsek and Balban (2010) reported gender differences in the use of learning strategies and also found more use of these strategies among the successful students. Anderson (2007) found no significant relationship between metacognitive strategies and achievement in algebra among African-American students while, Cheng (2002), in his study reported negative effect of peer-learning in learning computer concepts and. However, a study by Doljanae (1994) reported differences in the use of learning strategies for academic success among students in a course, when they just entered into it (i.e. in their first semester) and in final semester.

Research by Johnson (2014), Kaur and Kaur (2012) recognized significant relationship between motivational beliefs and academic achievement among students enrolled in higher education. Also, studies by Sakes and Mesut (2010), Artino et.al. (2009), Sungur (2007), Tellat (2007), and Ozkan (2003) emphasized on the contribution of motivational beliefs to student’s academic achievement and they also found a significant
and positive relationship between the two variables. Adcroft (2010) found differences in motivational beliefs among students with respect to the course they pursued. It was further suggested that the students’ interest in academics was influenced by their motivational beliefs while Taheri (2010) found gender differences in the motivational beliefs of students.

Loong (2012), Cheng (2011) and Artino (2009) investigated the effect of self-regulated learning strategy use and academic performance of students. The findings from these studies affirmed the positive effect of learning strategy usage and academic achievement among the students. Also, Simsek and Balaban (2010) in their research found disciplinary differences in the use of learning strategies and academic achievement of students. Shelley (2010) in her study found gender differences in approaches to learning among students in professional and academic courses in higher education.

Studies examining the relation between learning strategy usage and motivational beliefs were executed by Ongwo and Hungi (2014), Kingir et. al. (2013). These studies found that the above two constructs were related to each other. Research done by Keisci, et.al. (2011) corroborated with previous research and indicated towards significant relationship between the use of effort regulation and help seeking strategies and test anxiety among students. Several studies like Marcou and Philippou (2005), Neilson (2004) and Wolters (2000) indicated towards a significant relationship between motivational beliefs and use of learning strategies among students. Results from research conducted by Vanderstoep et.al. (1996) indicated towards significant differences in motivational beliefs and self-regulated learning strategies among high and low achievers in science and natural science courses.

Schwinger et. al. (2012), Kosnin (2007) and Vanderstoep et. al. (1996) conducted studies to study the use of self-regulated learning strategies and motivational beliefs as predictors of academic achievement and found a significant relationship between learning strategy use, motivational beliefs and academic achievement. Study by Lynch and Trujillo (2011) found significant and negative relationship between extrinsic goal orientation and academic achievement among females while Khatib (2010), found no relation between extrinsic goal orientation and academic achievement. Test anxiety (affective component of motivational beliefs) was found out to be having a negative
relationship with academic achievement in the studies conducted by Lynch et al. (2011), Khatib (2010) and Wolters, Yu and Pintrich (1996). Furthermore, Yildirim (2013) established motivational beliefs as a mediator between learning strategies and academic achievement.

Owston, York and Murtha (2013) and Webster and Min (2012) in their researches supported course experiences as a factor influencing academic achievement. Scarboro (2012) suggested that the course experiences have a significant role in student learning. This study also reported interdisciplinary differences in course experiences of students in higher education. Ning and Downing (2011, 2010), Nausheen (2010), Webster and Chang (2009), Karagiannopoulou and Christodoulides (2005), in their studies, have reported a positive relationship between course experiences and academic achievement among the university students.

Some of the studies pertaining to academic achievement emphasized the role of intelligence in determining the academic achievement e.g. Dieseth (2002) and Asthana (2011) while Bai (2011) and Chamundeshwari (2013) in their research depicted academic achievement to be a function of emotional intelligence. Research work by Bernardo (2003) and Chamorro and Adrian (2008) examined academic achievement in relation to approaches to learning and these studies concluded that students’ learning approach plays a decisive role in determining the performance in academics. Yip (2007) reported differences in the learning strategy usage among high and low achievers while Hassanbeigi (2011) concluded that high achievers were more efficient in using study skills as compared to the low achievers. Ahmar and Anwar (2013) in their research recognized gender and socio-economic status as factors affecting the academic achievement among students. Findings from the study by Hussain et. al. (2012) also supported gender differences and further this study brought forward the interdisciplinary differences in academic achievement among students with science students performing better than the students pursuing humanities.

Thus, academic success can be viewed as a combination of a number of self-regulated learning strategies and motivational beliefs. Most the research endeavours have focussed on effect of these as the predictors of academic success in educational attainment in higher education. There emerge some differences in relation to which
components of self-regulated learning and motivational beliefs affect the academic achievement of students as some of the studies have reported differences in the extent of usage of different components of motivational beliefs and learning strategies among university students pursuing a variety of courses. Also, it remains a question of investigation that how students’ course experiences (in terms of quality of instructions, aims and objectives of institution, assessment procedures, skill development programs etc.) differ across the disciplines and those in turn influence their academic performance.