CHAPTER-II

REVIEW

OF

RELATED

LITERATURE
CHAPTER-II

REVIEW OF RELATED STUDIES

Review of previous studies in the area of investigation enables the researcher to be familiar with the trends of the research practices and directions of the findings which is prerequisite and a crucial aspect of actual planning of the new investigation.

The present conveys its meaning in terms of past. In fact there is nothing new except in the context of old. Every new thing is learnt with reference to the old. It is an universally acknowledged fact that effective research cannot be accomplished without critically studying what already exists in relation to it in the form of general literature and specific studies.

Best (1983) considered the survey of related literature as an important pre-requisite to actual planning and execution of any research project. It helps to eliminate the duplication of what has been done and provides useful hypotheses and helpful suggestions for significant investigation. Citing studies that show substantial agreement and those seem to present conflicting conclusions help to sharpen and define understanding of existing knowledge in the problem area provides a background for the research project and makes the reader aware of the status of the issue. He further adds that, “The research for reference material is a time consuming but fruitful phase. A familiarity with the literature of any problem helps the students to discover what is already known, what others have attempted to find out, what methods of attack have been promising or disappointing and what problems remain to be solved.” Good, Barr and Scates (1992) have analyzed the purpose of the survey of related studies as; (i) To show whether the evidence already available solves the problem adequately without further investigation and thus to avoid the risk of duplication; (ii) To provide ideas, theories,
explanations or hypotheses valuable in formulating the problem; (iii) To suggest the methods of research appropriate to the problem; (iv) To locate data useful in the interpretation of results; and (v) To contribute to the general scholarship of the investigator.

So, to understand the problem in a better and fuller manner, the relevant literature revived for the present study has been mentioned under the following heads.

i) Studies on Career Maturity.
ii) Studies on Career Maturity and Interests.
iii) Studies on Career Maturity and Academic Achievement.
iv) Studies on Career Maturity and Socio-Economic-Status
v) Studies on Career Maturity and Gender Differences.

2.1 STUDIES ON CAREER MATURITY

Lehman and Witty (1931) noted that the choices that children make with the onset of puberty contain more realistic elements.

Dutt (1951) conducted a study in five girls’ schools of Delhi to ascertain the extent to which the high school girls make a vocational choice; the basis of such a choice; how far these choices are correct; the contribution of school towards this aspect of education and similarities or dissimilarities between present findings and those of other studies done in the West. The results of the study revealed that 75% of the girls had made their own choice but mostly unwise, 62.5% of the parents had suggested some kind of vocation for their daughters, 32.5% were recommended to be doctor and 14.5% to be teacher. Teachers played a little part in providing vocational guidance to their students. Only 29.5% of girls were suggested some kind of vocation by their teachers. On the whole, only 2.5% of the total school population seemed to have made right choices. Great similarities were found in the results of the study when compared to those of West.
Ramaiah (1956) concluded that in general, the inclination of boys of high school is towards engineering, government services and social service occupations. Literary, clerical and local occupations have been the best favoured ones. 93.4% of the boys have expressed their intention to study further, 39.1% of boys among those that intend to study further have poor financial resources.

Super (1957) and Harren (1979) discovered that the research and theory in career decision making have indicated that the development of crystallized preferences occurs in a sequential fashion in which an individual clarifies options, decides a preference and then commits to a given vocational choice.

Aggarwal (1958) discovered that the students expressed their greatest interest in social service, clerical and law. They preferred government occupations. In fact most of them wanted to be teachers, craftsman, clerks or inspectors etc.

Super (1967) found that adolescents from 14 to 18 years begin to narrow their choices according to their interests and values and seek out information about general categories of occupations and professions. From 18 to 21, they specify their vocational interests within one general category and seek information about specific occupations.

Super, Kowalski and Gotkin (1967) found that adolescents are not so systematic and rational. Many flounder after high school, making repeated job shifts with a clear plan based on adequate information.

Elder (1971) found that adolescents, like most people, make career choices in a haphazard and random way. Grewal (1971) concluded that the general appropriateness of the choice of students about their vocation was 4.61%. Bergwall (1975) found personality
integration amongst other factors a significant predictor of career maturity in the final regression model in his study.

Westbrook et al. (1976) found that the career decision scale correlated more highly with the attitude scale of the career maturity inventory. They concluded that in the career maturity inventory, attitude scale and the career decision scale have more in common with each other than they do with other instruments.

Lange (1980) found significant relationship between career maturity and career decision.

Ware and Pogge (1980) reported that vocationally more mature students were more realistic in making career decisions than less vocationally mature students.

Osipow and Waddell (1980), Jepsen and Prediger (1981), Fretz and Leongi (1982) observed that number of recent studies have reported low to moderate correlation between measures of vocational maturity and career decidedness. However, Westbrook (1982) found significant negative relationship between the career decision scale and career maturity attitudes, but not career maturity competencies. Harmon (1981) found that although women and aspired for nontraditional careers in their teens, they changed to more traditional career goals when they reached their twenties.

Royalty et al. (1984), in a study of traditional, non-traditional and home making oriented freshmen and senior women found no difference among the career women (traditional and nontraditional) on self esteem and career maturity, especially as freshmen. The only difference found was that home making oriented women differed less on these variables from freshmen and senior women than the career oriented groups.

Holland (1985) suggested that “realistic” individuals prefer practical jobs; “sociable” individuals are interested in the helping professions. “Enterprising” individuals look for power and status. Klayman (1985) examined the strategic decision behaviour of children, particularly the ability to adapt decision strategies to task characteristics. It was found that by the age of twelve, children understand many aspects of strategic decision making, and that they modify their strategies appropriately in response to task complexity, as do adults.

Perrino (1986) concluded that career maturity was promoted through greater internality for both academic and vocational students. The vocational students’ career maturity was also related to achievement. Bhatnagar and Gupta (1988) conducted a study to find the effect of a short term group guidance programme on career decision making of ninth class students. The results revealed higher career maturity scores after the guidance intervention programme.

West (1988) studied a sample of college students comprised of both Indian and non-Indian students from Eastern Montana College, to investigate and compare the career maturity of the American Indian and non Indian students. It was observed that Indian students had lower mean scores on career maturity than non-Indian students within the total sample and within the class levels. It was also found that other than ethnicity, rural or urban background of the students, age, educational grade level, and gender were the factors that influenced career maturity scores in students.

Gaikward (1989) reported that psychological testing; occupational information and group guidance programme certainly
help the students in making appropriate educational and vocational choices.

Dunn and Veltman (1989) suggested that lower career maturity might actually reflect perceptions of restrictive post graduation vocational options. A sense of limited career options may be amplified due to a lack of economic vitality and meaningful employment options found in many rural areas. A third possibility is that the delayed career maturity of at-risk youth may represent limited exposure to formal career preparation, the influence of age and lack of immediacy to identity potential careers, or both.

National Occupational Information Coordinating Committee (1990) conducted a survey of adults and found that nearly two thirds of the respondents had sought more information about career options when they began their careers. 30% percent got started through a series of chance circumstances, 18% took the only job that was available and 23% were influenced by family and friends.

Chandana (1990) studied the attitudes of high school students towards career choice process and the relationship of certain psychosocial variables with career choice. It was reported that the factors related to career maturity may differ for males and females and there is relationship between self-concept and career choice attitudes of adolescents.

Haddard (1990) showed that age was significantly related to career maturity. Further, no statistically significant relation was found between gender, major field of study, or years worked in current occupation and career maturity of graduate students.

Westbrook et al. (1990) reported positive relationship between career maturity and appropriateness of career choices.
Pennamma (1991) studied the patterns of occupational choices of secondary school pupils and school leavers. It was found that the school pupils and school leavers differ in their choices of ideal, preferred and actual occupations.

Ormond et al. (1991) compared early and middle adolescents on three categories of metacognitive knowledge as they relate to decision making: Personal knowledge; task knowledge; and strategy knowledge. It was determined that by middle adolescent understanding of what is involved in the activity of decision making is well developed.

Upon analyzing the specific roles of parents in the process of career decision making, the literature clearly identified mothers as the most influential parent (Bracey, 1992; Dawkins, 1989; Fields, 1981; Simpson, 1996). In early adulthood, many African-American children, particularly African-American females (Bracey, 1992; King, 1993; Simpson, 1996) are influenced by the aspirations of their mothers. The employment status of mothers, as well as the mother-child relationship influences the vocational outcomes of African-American Children (Bracey, 1992). African-American mothers influence their children by establishing middle class values of hard work and responsibility, placing emphasis on education, maintaining high expectations, and introducing cultural values (Simpson, 1996). As opposed to mothers, fathers play more of a complimentary role in career decision making (Schulenberg, Vondraceck and Crouter, 1984).

Kaur (1992) investigated the predictors of career maturity, and the efficacy of self-concept, locus of control and sex to predict the career maturity of eleventh class students from govt. senior secondary schools of Delhi. Self-concept and locus of control were found to be significant predictors of career maturity.

Lin (1993) found that in two top senior high schools of Taipei City, the gifted freshman student’s career goals were vague, and a
portion of them were irrational, although these students were superior
to their non-gifted counterparts in career planning and knowledge of
the world of work. Pharaon (1993) compared the career maturity of
college women in two cultures: Saudi Arabia and Lebanon. The results
indicated that Lebanese college females had a higher level of career
maturity than their Saudi counterparts as a result of greater
opportunities for career exploration and more educational options.
The socialization practices of a Saudi society seemed to have produced
in women confusion about their self- perceptions and their societal
roles.

Friedman and Mann (1993) conducted a cross – national study
of decision coping patterns in adolescents. Confidence in decision –
making and tendencies to use various decision – coping patterns were
measured. Group and gender differences were found, yet for both the
Israeli and Australian samples, decision coping patterns reduced to
two distinct clusters: a vigilant strategy and maladaptive strategies,
thus showing evidence that decision – coping patterns have cross-
cultural validity.

Sagan (1993) investigated into the relationship of self-concept,
career maturity and locus of control of adult students who were
enrolled in the Saskatchewan Skills Development Program. Although
no significant a changes were found in the variable on pretest and
post test scores, the results tend to support Super’s position that; (i) a
high self concept is important to career development and career
decision making requires a sense of autonomy or internal locus of
control. (ii) adults with a more positive self-concept and internal locus
of control orientation were likely to be mature persons, secure in their
level of career development, and not likely to be interested in exploring
new occupations; (iii) adults with a lower self concept and a more
internal locus of control might not, as yet, have crystallized a
preference for a field of work and a specific occupation.
Neece (1994) compared the career maturity of African-American college students studying in traditionally black institutions (TBI) and predominantly white institutions (PWI). The TBI students were found to have a higher levels of career attitudes than PWI students. TBI freshmen were much lower in career maturity than TBI seniors, who were similar to PWI freshmen and seniors. Furthermore, findings indicated that seniors scored higher than freshmen in almost all aspects of career maturity. In regard to gender, no differences were found. In general, parental variables and academic achievement were not strongly found related to career maturity.

Palmer (1994) found no significant differences between experimental group and the control group on self-esteem, vocational identity or career self-efficacy due to career planning instruction. Perry (1995) found that career maturity was positively related with grade point average, academic integration, faculty contact, encouragement from family and friends, and institutional commitment.

Dailey (1995) compared the career maturity of male athletes who participated in swimming and gymnastics and non-athletes in same academic environment. Results indicated that participation in surveyed sports resulted in low career maturity. Demographic factors such as parent’s education year in college, high school grade point average, and college grade point average were not significant predictors of an athlete's career maturity. However these were all predictors for a non-athlete's career maturity. Of the factors that influence career choice processes, family members, particularly parents, are the most influential determinant of career plans, occupational aspirations, and occupational expectations (Hines, 1997; Leong, 1995; Parham and Austin 1994). Otto (1989) reported that even if schools had the resources with which to meet young people's career guidance needs neither teachers nor
counselors can replace the influence parents have on their sons and daughter career plans.

Robinson (1995) observed that students who participated in a career course tended to change their choice of preferred occupational group; and participating in a career course positively affected career planning attitudes.

Hoyt and Lester (1995) worked on adults who had no career guidance as adolescents and reported the following findings; (i) Ethnic differences continue to operate as a deterrent to equity of career development opportunities for African Americans as compared with European Americans; (ii) Significant differences in career development exist among adults with various kinds of educational experiences; (iii) Career development needs exist significantly among adults in all age categories; (iv) A high priority must be placed on meeting the career development needs of persons who drop out of 4-year colleges and universities before receiving a degree; and (v) Special attention must be provided to those youths who either drop out of high school or seek to enter the labour market with only a high school education. Ranhotra (1996), Kumar (2002), Kaur (2002) are of the opinion that career maturity is controlled by certain variables. The extent of career maturity in the students depends on these variables strongly.

Galotti and Kozberg (1996) conducted a yearlong longitudinal study that examined the college decision-making process. It was observed that students do experience stress in making this decision and in many ways perceive it as a life-framing one. However, the reported feeling more certain of their decision more comfortable with their approach to the decision more confident in their ability to make the decision and more satisfied.

Lundberg (1996) concluded that significant cultural differences existed between Anglo-American and Mexican-American adolescents
in the areas of career maturity and personality predictor of career maturity in both of these adolescent groups.

Neyer (1996) compared the career maturity of elite athletes and non-athletes. No significant difference in career maturity was found between the two groups. Age and years of education were positively correlated with career maturity but the correlation was significant for non-athletes only.

Ranhotra (1996) in her study entitled ‘Career decision -making as related to career maturity, intelligence, self-concept, family environment and academic achievement at plus two stage’, found plus two students above average on all the six measures of career maturity.

In Lundberg et al.’s (1997) study Anglo ninth - grader’s had higher career maturity scores than Mexican – American students which they attributed to the latter's limited access to information about the world of work. They also found significant differences between the two groups on the Myers Briggs Type Indicator, highlighting the key influence of personality on career maturity.

Brown (1997) examined whether sex differences exist in career maturity for African -American urban youth and to study their career choice expectation and educational plans. African-American females were found to have higher career maturity; as is consistent with other studies of non-minority groups. Educational plans were found to be consistent with occupational expectations for both males and females.

Touma (1997) investigated the effects of gender race, school type and curriculum on the career maturity scores of high school students. Results indicated a significant main effect for race on the attitude scale of CMI, a significant main effect for curriculum, and interaction between race and curriculum on the competency scale of CMI, a significant main effect for race and curriculum and a significant interaction among school type, race and curriculum on the total score.
of CMI. No significant main effect for gender on either scales or total score of the CMI was observed.

Naidoo (1998) suggested that career maturity is influenced by age, ace, ethnicity, locus of control, socioeconomic status, work salience, and gender. The complex interaction of these factors affects individual readiness to succeed in mastering the tasks appropriate to various stages of career development.

Perron (1998) found that minority students in Quebec had higher ethnic identity and vocational maturity earlier than the majority population but their maturity scores fell behind by 11th grade. They suggested that increased ethnic identity might lead to greater awareness of potential barriers and thus lower career maturity.

Wood (1998) explored the relationship of career maturity to ethnicity, gender, academic achievement, interests, parental influence, and socio-economic status in African-American and White students. The independent variables better predicted the CMI subscales for White ninth graders than for African American ninth graders. Academic achievement appeared to be most predictive for the White group. For the African-American group race and interests appeared to be the predictor variables. The independent variables were found to be better predictors for males than for females.

Wu-Tien Wu (1999) noted that mathematically and scientifically talented male senior high school student’s diversity of occupational interest was basically similar to that their regular counterparts. This is in accordance with Chen’s (1993) findings.

McCartney (2000) studied the effect of career intervention on the career maturity of rural high school youth and found no significant differences in career maturity of treatment and control group. Hinkelman (1999) conducted a study to examine the effects
prior counseling on the career maturity of rural high school students. A sample of grades nine to eleven students were selected. He found significant main effects for time (frequency of treatment) and sex for career maturity a significant main effect for time as well as group x sex interaction and a group x sex x time interaction on for career maturity.

Weisskirch (1999) found significant relationship between career maturity and self-clarity, achievement identity status, moratorium identity status. Relationship between career maturity and knowledge about occupations and training, parenting styles, part-time work attitudes, and school attitudes did not reach significant levels.

Mau (1999) examined the cultural relevance of two important career constructs: career decision – making style and career decision making self-efficacy. Two distinct cultural groups of college students Americans (N=540 and Taiwanese (N=1026), participated in this cross-cultural study. Results suggested that career decision – making style have differential impacts on career decision – making self- efficacy, depending on the cultural background of the individuals. Results also showed significant differences in career decision – making style and career decision – making self-efficacy as a function of nationality and gender.

Reed et al. (2000) found a significant decrease in the negative career thoughts of students after they attended a university career development course based on cognitive information processing theory.

Hardin et al. (2000) investigated whether theories and measurement of career maturity, because of their reliance on independence in career choice attitudes as a crucial variable may be culturally relative and therefore less valid when working with Asian Americans. Results revealed that as a group, Asian Americans exhibited less mature career choice attitudes than European
Americans. However, High Acculturation Asian Americans and those with lower Inter dependent self-construal did not differ from European Americans in maturity of career choice attitudes.

Jaques (2000) examined the differences on measures of career maturity between female student athletes and female students not participating in college athletic team. No significant difference was found between the two groups on any of the measures of career maturity. Vatsa (2001) found significant difference in the vocational maturity of adolescents of academic and vocational streams. Students from academic stream scored significantly higher in comparison to their counterparts in vocational stream.

Flores and O’Brien (2001) tested Social cognitive model of career choice theory (Lent, Brown and Hackett, 1994) with 364 Mexican-American adolescent women. Path analyses were run to determine the influence of contextual and social cognitive variables on career aspiration, career choice prestige, and traditionality. Partial support for the model was evidenced as nontraditional career self-efficacy, parental support barriers, acculturation and feminist attitudes, and nontraditional career self-efficacy predicted career choice traditionally. Feminist attitudes and parental support predicted career aspiration. The paths between nontraditional career interests and the three outcome variables were not supported. Finally none of the background contextual variables in this study predicted nontraditional career self-efficacy.

Kumar (2002) worked on career maturity and attitudes towards modernity of backward and non-backward class high school students and arrived at the result that at least the crucial adolescent age when students have to make educational choices keeping in view their career goals, ‘class’ (backward) as such is not a significant factor. Both backward and non-backward students studying in Punjab are equally realistic and mature in their competency to make a choice.
Kaur (2002) reported that senior secondary students in different groups possessed below average to average level of career maturity. Greene (2002) in the research on gifted and talented students came to the conclusion that for the diverse counseling of the gifted and talented population additional areas need to be further explored. It was concluded that a lifespan approach to career counseling is crucial, acknowledging that occupational interests, competencies, creativity, and preferences may indeed change over time. Individual needs of a diverse population is essential. A collaborative career counseling effort among counselors, parents and teachers can help each student develop a personal definition of identify, achievement and career success after careful self-analysis of abilities, clife goals and occupational possibilities.

Barker (2003) in his study in career maturity of adjudicated and nonadjudicated students came to a result that no difference in career-maturity existed of these students without disabilities when SES and age are controlled. However those with disabilities scored below on career maturity measures. Thus, the higher the rate of reported behavioral issues, the lower the level of the student’s career-maturity.

Pieterse (2005) aimed to investigate the occurrence of possible differences in the time perspective and career maturity for learners of different grades, genders and school environments and also if time perspective of learners could be used to indicate a significant percentage of variance in their career maturity. The findings indicated that differences do exist in time perspective and career maturity for learners of different grades, genders and school environments. It was found that learners from disadvantaged schools were more focused on the future and also achieved the lowest average in career maturity.

Borges et al. (2007) did a research on career maturity and come to a result that the traditional medical school students appeared to be more advanced regarding formulating a general preference for a career
in medicine, developing their vocational identity, they also had a greater ability to convert a generalized preference into a specific preference for a career as a physician.

Dybwad (2008) examined the structural validity of Daidalos, a 20 item inventory designed to assess the factors that might inhibit or promote successful career maturity. The results showed that the model was more appropriate for women than for men.

Ohler et al. (1996) in their research on career maturity of college students with and without learning disabilities came to the result that few difference in career maturity were found. They studied that students with learning disabilities who received more instructional accommodations had lower levels of career maturity.

Lim et al. (2010) in their study on career attitude maturity found that cognitive behavioral therapy had a positive effect for increasing the career attitude maturity and self-esteem for students in Korea.

Mubiana (2010) revealed in the study on career maturity, self-knowledge and career knowledge that respondents had adequate levels of career maturity.

Giruad (2011) in his research on emotional intelligence and career maturity of Millennials in college came to the result that as an individual increases in age, his career maturity increases as well.

Saini (2012) in her research on Career Maturity of adolescents in relation to their emotional maturity revealed that a negative relationship was there between career maturity and emotional maturity. She also found that male adolescents were better than female counterparts with regard to career maturity.
To sum up in the light of the research studies evidence, following major trends emerged: Studies referred to above illustrate that career maturity of an individual is a gradual process that develops through age, experience and grade level (Elder 1971). It increases as he/she grows through different age and grade levels (Klayman 1985). Moreover choice process is not a single and independent act; rather a number of other factors cast their influence on the career behaviour and maturity of an individual. (Dutt 1951; Dunn and Veltman 1989; Perry 1995).

2.2 STUDIES ON CAREER MATURITY AND INTERESTS

Carter (1940) gave the Strong Vocational Interest Blank at regular annual intervals to 170 adolescents to discover if educational and maturational factors are most significant in the determination of vocational attitudes and came to the conclusion that the strong scales were probably almost but not quite, as reliable and stable when used at the high school, level as when used with adults.

Jacobson (1942), while studying interest patterns and achievement in medical schools found that those who were characterized by scientific interests were more successful students. He found that students with more of scientific and such like interests, secured better grades in the first year of the college.

Yum (1942), while studying the preferences of students, found that significant correlation of 33 existed between literary interests and grades of men, and of 29 between computational interests and average grades of women. Crosby (1943) reported significant interest differences between students achieving high or low in Chemistry and Biology.

Triggs (1945) ascertained significant correlations between scholastic subjects and achievement. Glazer (1960) viewed the situation in a way that variance in levels of education or degree of
education might be an influencing factor in development of different interest patterns.

Chatterji and Mukherjee (1963) in India, studied college students by using (i) biographical questionnaire (BQ) as well as (ii) non-verbal interest inventory (NVII). They found out that the correlations obtained on the basis of arts group showed some significant relationship between interests and examination marks. In science group, not even a single correlation was significant. As the investigators have suggested themselves, the reason for the same may be that science group did not answer the inventories seriously.

Segel (1965) found that at school level the correlations between scientific scale and scientific subjects ranged from .28 to .49.

O’Shea (1968) in a study found that high achievers obtained significantly higher means than low achievers on the school Interest Inventory (SII). Carek (1972) questioned the methodology used to interpret test results in earlier studies comparing similarly named scales on the SVIB and Kuder (OIS), Form DD. In the present study a sample of male all college students was taken. No significant differences were found for 19 pairs of scales.

Katz and Norris (1972) observed significant contribution of academic interest measures to the differential prediction of marks, particularly at high school level. Seetha (1975) while enquiring into the psychological and social factors affecting academic achievement found that no significant relationship existed between interest and academic achievement.

Marker (1975) did a survey of teacher education in the state of Maharashtra. Her findings included among others “the teacher educator at all levels are lethargic, conservative, they do not read, they do not think, they do not apply themselves to bringing about improvement, they take to the line of least resistance.: This finding
indicates that teacher educators seem to have little interest in their profession.

Ouckathi (1993) compared the interests of athletes and non-athletes and the results showed significant differences in their interests on comparing the both. Prasert (1993): He concluded that the results of analysis of variance (ANOVA) revealed significant differences in comparing the athletes and non-athletes on the variable of interests, significant at .01 level. A glance at the means presents that the non-athlete group (M=75.66) bears a higher mean scores than the counterpart (M=64.73). Thus, it can be interpreted that the athlete and non-athlete students differ from each other on the variable of interests. Hence the hypothesis that “The interest of athlete will be significantly different from those of non-athlete” is rejected.

Ferry et al. (1999) applied causal modeling techniques to the Lent, Brown and Hackett (1994) model of person, contextual, and experiential factors affecting career – related choice behaviour. The effects of family context and person input variables on learning experiences, self-efficacy, outcome expectancies, interests, and goals are examined. Data on undergraduate students (N = 791) enrolled in psychology classes at two universities were collected. Results based on a revised path model provided empirical validation of the Lent et al. (1994) model for this college student population. As a family background complex variable, parental encouragement was found to have significant direct effects on learning experiences (grades in math and science and outcome expectancies were both directly related to interests and goals. Self-efficacy also had a significant direct effect on Outcome expectancies and interests had a significant direct effect on goals.

McPhail et al, (2000) had a research which focused on how students interest can inform curricular context marks. The findings indicated that students reliability described their genuine interests
over-time. Students’ interests were found to be effective tools for informing curriculum decisions in the creation of sixth grade learning context.

Chen and Darst (2002) took a study to examine individual and situational interests in learning motor skills as associated with gender and skill. They came to the result that high situational interest group had more students with high skill and high individual interest. The results suggested that individual interest and high situational interest in learning motor skills were related. Kaur (2002) in her research concluded that question-answer strategy us able to create more interest among students in politics as compared to lecture strategy. In her research she found that there is insignificant difference between different groups on the variable of political interest. Students of all the groups were nearly identical in their political interest and if there was any difference in the mean political interest score, that can be taken as insignificant as t-ratio in all the cases are insignificant at 0.05 level of significance.

Grewal (2004) also regarded interests as a significant factor in her research. In her study arrived at the result that there was negative correlation between job-stress and job-satisfaction, interests and adjustment, of the teacher educators she advised to not to over-load them with professional responsibilities so that their job-satisfaction, interests and adjustment levels may be kept at optimum level.

Naceur and Schiefele (2004) in their work on interest effect took a sample of total of 286 8th, 9th and 10th grade students. They were assigned to either a high topic interest or a low topic interest group. It was shown that the effects of interest are not only short-term.

Trumper (2006) studied the interest of Junior high school students in Physics at the end of their compulsory schooling in Israel under a framework of the ROSE project. (The Relevance of Science
Factors studied were their opinions about science classes, their out-of-school experiences in Physics and their attitude towards science and technology. He came to the result that the students overall interest in Physics was “neutral”, with boys showing a higher interest than girls. He found a strong correlation between students’ “neutral” interest in Physics and their negative opinions about science classes.

Wynn and Bledsoe (2006) made a research on the factors related to gain and loss of scientific interest during high school. The attention of the public upon science and science education was important in order to compete successfully in this world of competition. A student’s achievement in science and mathematics would depend on his academic ability and his interests. His interests would be of extreme importance in his selection of courses and in his vocational choice.

Carmichael and Hay (2008) in their research paper on middle school students’ interest in statistical literacy reviews the concept of interest and its motivational influence on learning. Findings reveal that very little research has examined the influence of positive affect such as interest on learning in the middle-school statistics context. Further, these findings suggest that interest development will be the result of a complex interplay of classroom influences and individual factors such as: students’ knowledge of statistics, their enjoyment of statistics and their perceptions of competency in relation to the learning of statistics.

Habashi et al. (2008) in their research on Teacher influences on child interest in STEM careers identified large gender differences in the interest of both sexes. These differences lead to differences in interest in STEM and non STEM careers for men and women. The current research examines the role elementary and middle school teachers play in these differences. The results indicate that teachers
are able to translate students' interest in person and things into career interest in a better manner. The results provide the evidence that students’ interests are plastic and able to be shaped.

Savoie (2009) in his study to monitor the underachievement in a Quebec coeducational high school showed boy’s negative perceptions of fine arts. Referring to biology and cognitive science, the article explores concepts of sex-related cognitive traits to help in designing sex-adapted approaches to individual learning in art-education. The nature-nurture controversy still surrounds sex-based cognitive differences studies, though science agrees that natural and socio-cultural factors are somehow closely interwoven in the complex gender identity construction process. He further suggests that in the context of art education these sex-related cognitive models deserve study so that they could stimulate boy’s interest in the arts.

Raaf et al. (2009) in their study came to the result that young workers should be well prepared to compete in the labour market and can become more career mature if they choose jobs according to their interests.

Herndon (2010) demonstrated the vocational utility of Individual Psychology and the constructs of lifestyle and psychological birth order to determine career interests, preferences and choices in the study done by him.

Hughes (2011) in her study on cross – cultural study of career Maturity came to the result and career maturity is influenced by cultural context and also these preference develop into well – defined interests.

Dipelou et al. (2012) came to the result that vocational interests in high school students can be predicted using standardized instruments which can inform subsequent interventions.
To sum up from the above studies it may be concluded that interests is an important factor in determining the career-maturity of the students. (Jacobson 1942; Crosby 1943; Segel 1965; Wynn and Bledsoe 2006)

2.3 STUDIES ON CAREER MATURITY AND ACADEMIC ACHIEVEMENT

Students at the plus one stage have to select certain courses, so they have to be conscious of their decisions, as good academic scores are in a way related to one’s career choice.

Bradley (1943) found an increase in the number of marks as the individual proceeds from the selection of unskilled to professional courses.

Dutt (1951) reported that sixty two percent of the girls who chose teaching or medicine as their profession did not have good academic accomplishments, as their class ranks were low.

Holden (1961) in a sample of 109 students from grade 8th to 11th concluded that students tend toward those vocational choices that are most suitable to their scholastic ability.

Ashby et al. (1966) and Taylor (1979) found negative relationship between high academic achievement and indecision. Reddy (1971) observed significant relationship between occupational choices and academic achievements of students.

Smith (1971) concluded that achievement is a significant predictor of vocational maturity for eighth grade boys and girls.

Cosby (1974) emphasized that it is now a scientifically well-established fact that those students who have better academic records tend to be vocationally more mature individuals them those whose academic achievements are poor.
Bloss (1972) reported a negative relationship between enrolment in agricultural education and vocational maturity of senior secondary students. Harris (1976) found academic achievement to be negatively related to career maturity on studying its effect on occupational information for education and work system.

Hamby (1977) found no significant effect of academic achievement on vocational maturity. Parlikar (1973), working with 75 boys and 75 girls of 8th to 11th grade of Gujarati medium schools of Baroda city, found that those students who have better academic records tend to be vocationally more mature individuals than those whose academic achievements are poor.

Kaur (1975) studied the under-achievers and found that career maturity was positively related to academic achievement. Bhagrath (1978) found positive correlates of academic achievements by the teachers and students of high school.

Behal (1982) studied the differential predictive efficiency of creativity and intelligence for academic achievement and found it to be positively related to concrete thinking and formal thinking.

Bajwa (1998) observed that high academic scores resulted in more career mature students at senior secondary stage. Kaur (1999) studied the academic achievement of post graduate students and found that good academic scores had a positive effect on their career maturity.

Yuthim (2001) found academic achievement to be positively related to career maturity of students. Kaur (2001) reported academic achievement having positive effect on the career maturity of adolescents.

Sharma (2002) studied the effect of academic achievement on plus two students and concluded that their career maturity increased
with their academic scores. Behera (2002) reported a positive relationship between academic achievement and career maturity of vocational students.

Sarita (2003) is of the view that academic achievement is an important variable and that it effects the career maturity positively.

Walsh and Hanle (1975) concluded that academic achievement correlates positively with career maturity.

Gasper (1976) found that students who perceived themselves as doing well in school possessed higher vocational maturity than those who perceived themselves as being less successful in school. Vohra (1977) found that students scoring high academically were opting for technology, general culture, social service, and arts and entertainment.

Arredondo (1977) concluded that student’s academic achievement did not have a significant effect on career maturity. However, when controlling for age, significant differences were found in the planning for total scale. In both instances, the data revealed that students in the A grade average group had significantly higher mean score than the C grade average group.

Chand (1979) studied the correlates of vocational maturity of 480 boys and girls of urban and rural high schools of Chandigarh and showed that academic achievement of students was directly related to their vocational maturity.

Perrone et al. (1979) found that talented persons sometimes have a tendency to commit themselves to career choices prematurely, based on subject – matter fields in which they achieve considerable recognition and success.
Havighurst and Levine (1979) reported that successful completion of college study represents a channel for greater earnings and upward career mobility and also increases the likelihood that one’s offspring will have better prospects for earnings and employment.

Osipow and Wadell (1980) examined the relationship between career decision scale and grade point average for the first term freshmen and found insignificant relationship between achievement and career decision.

Ware and Pogge (1980) suggested that students might accept or reject career possibilities because of their level of dissatisfaction with their educational attainment. Pavlok (1981) reported that grade point average (GPA), along with other variables was the best predictor of vocational attitudinal maturity (CMI) for ninth grade students.

Robinson (1981) reported a positive relationship between career maturity and academic scores. Khan and Alvi (1983) found that academic achievement was positively and significantly related to vocational maturity.

Westbrook (1982) reported correlation between academic achievement and vocational maturity to be ranging between -0.10 to 0.77 with a median of 0.57. Different subjects were found to have different effects on vocational maturity, which ultimately help in the development of a realistic self-image of an individual.

Bourjaily (1984) found a significant relationship between academic performance and occupational aspirations. Students reporting high academic performance indicated an orientation towards academic occupations, students reporting lower academic performance indicated an orientation towards vocational occupations.
Gaur (1987) reported academic achievement as one of the predictor variables of career maturity in case of non-scheduled caste boys.

West (1988) in a sample of college students comprised of both Indian and non-Indian students from Eastern Montana College found that career maturity was positively and significantly related to age and GPA but not to gender for the total sample. A significant positive correlation was also found between career maturity and GPA for the group of American Indian students in the sample. A low positive correlation was found for the non-Indian students in the sample. But this correlation was not significant.

Mangat (1988) concluded that academic achievement was significantly related to occupational information, goal selection, planning, total competence and total maturity.

Some distinct subgroups, however are exceptions (Burkhead and Cope 1984), and minority ethnic groups have been found to score consistently lower on career maturity than comparison Caucasian groups. (Loesch et al., 1979; Pelnam and Fretz 1982).

Sharma (1993), however, found that the scholastic achievement did not play an important role in influencing the attitudes of the adolescents towards career maturity. Results also revealed to the inference that boys, irrespective of their scholastic achievement tend to have similar attitudes towards maturity. As regards the career competence high achiever boys have better competence in comparison to their counterparts. It was also found that boys having high achievement were significantly higher in problem solving and planning as compared to their counterparts.

Sharma et al. (1993) found that the science - math's group showed significantly favourable career attitude than commerce group. It was also found that both the groups showed significant differences
in total career competence as well as in planning, problem solving and self-appraisal. Science group showed better total competence as well as in planning whereas, commerce group showed better competence in self-appraisal. In another study, Sharma (1993) arrived at the conclusion that the scholastic achievement did not play an important role to influence the attitudes of adolescents towards career maturity.

Sharma and Bhargava (1994) also found that science (Biology) and commerce groups differed significantly in career attitude. It was also found that the commerce group showed better total competence and competence in occupational information and goal selection. Whereas, science group showed better in problem-solving competence.

Neece (1994) arrived at the conclusion that academic achievement was not related to career maturity. Perry (1995) however found a positive relationship between career maturity and grade point average. Melton (1995) observed that there was statistically significant difference in career maturity between high academic ability group and the middle and lower academic groups. Females, from all the three academic groups were found to have higher career maturity when compared to males.

Bhargava and Sharma (1995) concluded that both high achieving and low achieving students did not differ significantly in career attitude. However, high achievers and low achievers showed significant difference in total career competence as well as competence in self-appraisal, occupational information, planning and problem-solving. Low achievers showed better competence in goal selection.

Dailey (1995) compared the career maturity of male athletes and non-athletes in same academic environment. It was observed that grade point average was a significant predictor of career maturity for non-athletes only. Ranhotra (1996) in her research found that among
the academic stream subjects, science (medical and non-medical) students showed more decidedness and also exhibited higher level of career maturity than the students of arts and commerce

Brown (1997) found that the educational plans of African–American urban youth (both males and females) were consistent with occupational expectations. Wood (1998) noted academic achievement to be one of the predictor variables of career – maturity.

Wu-Tein Wu (1999) found significant relationship between career variables and academic attributes among senior high school students. It was also observed that gifted group surpassed the regular group in academic interest and performance in both science and mathematics, but the trend was opposite in some courses (i.e. Chinese literature, Living arts, and Social studies).

Powell (2000) reported that students with higher grade point average scored higher in career maturity inventory than their counterparts with lower grade point average. Kumar (2000) observed that level of vocational maturity of the students at 10+2 stage was below average in career choice attitude as well as career choice competencies. It was also noted that academic stream students scored higher on vocational maturity inventory as compared to the students from vocational stream.

Kaur (2002) found a positive relationship between academic achievement and the measures of career maturity. The performance of group was above average.

Kaur (2002) found that there was significant difference among six groups of students taught political science through question answer, assignment, group discussion, question answer assignment, group discussion and lecture strategy respectively.
Legum and Hoare (2004) did a research which was to determine the effect of a career intervention program on at-risk middle school students’ career maturity levels, self-esteem, and academic achievement. The evidence suggested that the sample’s career maturity levels (attitude and competency) and academic performances improved after the career intervention. It was deduced that as students begin to connect their academic accomplishments with the expectations of the world of work, they are more likely to understand the significance of remaining in school and may take more prudent decisions concerning their short-and long-term futures.

Dhillon and Kaur (2005) found that career maturity had significant positive correlation with career maturity competence and academic.

Kaur, J. and Mona (2006) found that academic group students had higher career maturity and intelligence as compared to their vocational counterparts.

Miles, J. (2008) in a research on South African youth found that career maturity and academic motivation improved subsequent to the career intervention programme.

Dybwad (2008) in his research on dropouts found more academic achievement resulting in more career mature students.

Havenga (2011) on his research to find relationship between top academic achievement in grade 12 and career adaptability found a significant relationship between them.

Hooley et al. (2011) in their research found people who experience academic success are more likely to receive higher earning and a range of other lifelong indicators of success.
Ogbebor (2012) investigated academic achievement of mature and regular students and found it to be positively related to career maturity.

To sum up various studies have indicated that higher academic achievement is positively associated with mature career behavior (Reddy 1971; Walsh and Hanle 1975; Powell 2000). It may be assumed as one of the predictor variables of career maturity. Although few cases reported negative relationship between high academic achievement and career maturity. (Ashby et al. 1966; Taylor 1979)

**2.4 STUDIES ON CAREER MATURITY AND SOCIO-ECONOMIC STATUS**

Reddy (1972) studied the role of socio-economic factors in the development of vocational sense. The study revealed that middle level SES groups displayed knowledge of a distinctively higher number of occupations. Occupational choice increased from grade to grade. Blocher (1973) in his study found that an individual’s career maturity may be a reflection of his experiences in the social class and family culture. Likewise Chand (1979) too reported socio-economic status had significant relationship with career maturity.

Dhami (1974) observed that socio-economic status had positive effect on scholastic achievement and career maturity.

Bedi (1982) found that aspirations of adolescents were positively related to socio-economic status.

Toong (1982) observed that socio-economic status of high school students was positively related to their vocational aspirations.

Neelam (1992) reported a positive relationship between career maturity and socio–economic status of secondary stage students.
Sharma (1995) suggested a positive relation between the vocational identity and family socio-economic status of senior secondary students.

Kumar (2000) examined the vocational maturity of 10+2 students in relation to socio-economic status and reported a significant relationship between the two variables.

Sandhu (2002) studied the effect of education and socio-economic status and formed that career maturity was positively related to socio-economic status.

Raj (2003) regarded socio-economic status as an important factor in determining the career-maturity of the students. It had a positive effect on career-maturity.

In a study by Mohagheghzaden (1980) it was revealed that socio-economic status and junior high school achievements influence the choice of a vocational education curriculum of the senior high school students. While studying the high school students, Wenstrom’s (1981) showed that parents exhibit a profound influence upon students’ career decisions. It was also found that the students who had not been able to identify a specific career choice are more greatly influenced by their peers than those who have a selected choice. Occupational information and other reading materials were perceived as having provided little help in career decision making efforts by students in small rural high schools.

A significant relationship was found among educational personal and vocational aspiration with the socio-economic status of adolescents. Bedi (1982) reported that there was no effect of SES on social aspiration. On the other hand, Weener (1983) did not find any significant relationship between family background and vocational maturity at age 24 to 27. Vocational maturity and vocational immaturity were significantly related to the kind of completed post-
secondary educational degree, certainty about occupational plans, degree of satisfaction with occupational goals and progress. It has been observed that many parents with prestigious employment and higher educational attainment used child reasoning approaches that emphasize the interpersonal skill as being components of social and vocational competence. Parents from such background often use reasoning and negotiations to encourage such qualities.

Ugwuh (1984) reported that various categories of students as well as their parents had favourable attitude towards vocational education. Neither students’ family income, educational qualifications and occupations nor students’ academic grades and vocational training influenced their career choices.

In a study conducted by Spurlock (1984) in order to determine the relationship of career maturity, SES and sex, it was revealed that SES was a significant factor in career maturity. The participants differed by sex in their level of career maturity and sex emerged as a significant predictor of their career maturity.

Relationship of socio-economic status and perceived range of career options was explored by Rotburg (1987). Results revealed that job interest and career self-efficiency expectations significantly predicted the range of perceived career options above and beyond the contribution of socio-economic status.

Peterson and Rollins (1987) reported that parents who occupied white collar exercised initiative and self-direction with their children in order to meet the job expectation that they faced on a daily basis. In a similar way Mangat (1988) reported that SES had a significant relationship with all areas of vocational maturity barring self-appraisal and problem solving. SES was found to be the best predictor of the total vocational maturity.
Gaur (1987) found that the predictor variables of career maturity in the case of non-scheduled caste boys were social values, intellectual self concept, and total academic achievement. In case of scheduled caste boys, social concept and theoretical values were found to be significant.

Chalungsooth (1989) in a study on South East Asian women of Malaysia, Philippines and Thailand, reported out of the 13 factors that influenced the career decision-making, the effect of family was the most important. Georgion (1990) reported similar findings.

In a sociological investigation of educational and career rout of a group of Indian Secondary students, Naicher (1989) revealed that there was significant positive relationship between the actions and decisions of the students and the structure of the society.

Aggarwal (1989) conducted a study on career aspiration and found that parents’ interest and concerned with the academic programmes of the girls had a positive effect on the career aspiration of the respondents.

Gill (1990) collected data through interview from households of the Indian village – Mullanpur to investigate the impact of “being peripheral villages to cities” in terms of the relationship between caste and occupational structure. Findings highlighted that the particular kind of infrastructure and job opportunities offered by a city may affect various castes differently. They further reported that industrialization and urbanization may lead to greater change in caste and occupational structure.

Farmer et al. (1991) found that a significant predictor of persisting interest in science and technology career was the students’ perception of their parent’s positive attitude towards science. Similar findings were reported by Hilton et al. (1991).
Gupta (1991) found significant relationship of career maturity measures with socio-economic status, intelligence, level of vocational aspiration and participation in school and out of school activities.

Hoffman et al. (1992) found parents to be the primary influence on the career choice of their child.

Owens (1992), Young and Friesen (1992), Middleton and Longhead (1993) reported that children’s career choices were strongly influenced by the role of parents.

In order to assess the level of career maturity and career indecision that existed in a population of South Georgia middle school students, Carpenter (1993) measured the effect of participation in a unit of career studies on the career indecision and level of career maturity. The study revealed that younger students within the grade level formal students and White students scored high on CMI than their counterparts other in ethnic groups.

Karlin (1993) conducted a study on the parental influence in the career choice of post-high school graduates. Results revealed that father’s income influenced the status of career choices. Potential for high income, family plans and father’s job significantly influenced the status of career choices.

Thomas (1993) found no relationship between career indecision, social class and ethnicity. Again, the study indicated that career indecision was negatively related to levels of sponsorship obtained from otherwise i.e. subjects who were the recipients of sponsorship activities were more likely to be career decided.

Ann (1993) reported that father’s income influenced the status of career choice, potential for higher income and family plans. Father’s education, job and attitude towards job influenced career choice.
Naidoo (1993) examined the validity of Super’s theory of career development in an under researched subject population, African-American male and female university students. A conceptual model of career maturity composed of determinants derived from Super’s theory and based on research with Caucasians was hypothesized and examined. The rationale was that finding a good fit of the model that also accounted for a significant proportion of the variance would support the adequacy of Super’s theory in explaining the career maturity of African-American students as well. The co-determinants of career maturity in the model were sex, educational level and socio-economic status (SES) as exogenous variables, and causality and work salience as endogenous variables. Causality and work salience were depicted as latent variables mediating the effects of the demographic variables on career maturity. The results suggested that Super’s theory might not be wholly adequate in explaining the career maturity of African-American university students. Only commitment to work and educational level were found to be significant predictors of career maturity. Female students were found to be more committed to the work role and more career mature than male students. In general, African-American students exhibited higher participation, commitment, and value expectations in the role of home and family than for the work–role. No significant relationship between SES and career maturity was found.

Ocuwalana (1994) undertook a study on career aspiration and manpower needs at the secondary level in Nigeria and revealed that there were significant relationships among the size of the community, where the students usually resided, educational aspirations of the students, types of school preferred by the students, variety of school programmes and students’ career aspiration. Further the researcher pointed out that school curriculum was not harmonious with the occupational needs of the students.
Blan and Peter (1994) undertook a study entitled as ‘Social structure and life chances current perspective in social theory’ and explained how people’s life chances are subject to structural influences particularly their career chances – both favourable and unfavourable. After noting the importance of population structure for social life in general, the more specific influence on the division of labour and occupational structure of the society was explored. He opines that it is this structure that influences the possibilities for social mobility through career chances. Narrower influences on career opportunities include the structure of specific industries and economic sectors.

The most important predictors of educational aspiration, as reported by Smith and Renee (1994) study are grades, poverty status, parent’s expectations, low ability group, assignments in the courses and discussing high school plans and career with a teacher or adults outside the family. Further, gender, high ability group, group assignment in one or two courses were found to be important predictors of vocational aspiration.

Coetzee (1994) indicated that decision-making was an important factor in the career maturity of adolescents. The readiness to make a decision regarding a career includes psychosocial and cognitive readiness. Socio-economic background and the parental subsystem both influenced career maturity of standard nine pupils. All dimensions of family functioning were related to career maturity.

Catawzarite (1995) studied social/ethnic differences in regard to the impact of work and family on women’s poverty. Findings revealed that the likelihood of poverty was significantly higher for women in occupations with prevalence of black women and lower for occupations that were white female dominated. The introduction of occupation level variables did not alter substantially the individual level disadvantages associated with race/ethnicity, suggesting thereby
that minority women experience a disadvantage within occupations as well as a disadvantage due to occupational segregation.

Davis (1995) conducted a study on 8810 white and 1323 black males to examine the extent to which opportunities for social mobility for black males had changed since the early 1970s. Results indicated that interferential occupational mobility for both black and white males were associated with their father's occupational attainment though blacks experienced greater downward mobility than whites. He concluded that race continues to influence the occupational mobility of blacks.

Lankard (1995) in a study entitled ‘Family role in Career Development’ stated that family processes of interaction, communication and behaviour have important influence what the child learns about work and work experiences. Further, attitudes about school and work, educational and career goals and aspirations and values have a long term impact on a youth’s career choices, decisions and plans. That the parents from different groups have different types of influences on the educational and occupational decisions of both boys and girls in the family, was also the finding of the study.

A study by Wood and Rita (1998) was conducted to assess the career maturity of ninth grade students as measured by the CMI. This study explored the relationship of career maturity to parental influence, ethnicity, gender, academic achievement and interests. The findings of the study revealed that the relationship of independent variables such as gender, academic achievement interest, parental influence in a linear combination of CMI sub-scales were different for African, American and White subjects. The independent variables better predicted the CMI sub-scales for White ninth graders than for African, American ninth graders. Grade point average appeared to be the one independent variable that was most predictive for the White
group. For the African and American groups, race and interests appeared to be the potential predictor variables. In respect of the findings for male and females of this investigation, the independent variables were better predictors for males than females.

In a study examining concerned with the development of vocational maturity and ethnic identity of majority and minority group students in the province of Quebec, Canada was conducted by Perron (1998), the following trends were evidenced: (i) The minority group started earlier in their vocational development, but fell behind the majority group by the time career decisions were made and the work began. (ii) The higher mean scores of the minority group on vocational identity measures were related to their own and parent’s level of educational aspirations. (iii) The higher level of information seeking activity (one of the measures of vocational maturity) was perceived in the minority group. It could be interpreted as a strategy against discrimination. The study was longitudinal in character and the students were derived from grades eighth through eleventh.

Bianchi (1998) studied the variables influencing eighth grade student’s career aspirations and found gender; father’s educational attainment, father’s occupation and student’s reading skills are significantly related to career maturity.

Bianchi (1999) conducted a study to examine career maturity of eighth grade students in relation to certain selected variables. Career aspiration data were provided by 115 females and 138 males eighth grade students. The study utilized both descriptive and inferential statistics. It was concluded that individual differences in career aspiration were associated with specific antecedent conditions such as students’ gender, father’s educational attainment, father’s occupation and student’s reading skills. There was a significant relationship between student’s career aspiration and student’s gender; girls in the study did not expect to enter traditionally technical career.
Fakunaga (1999) explored the influence of cultural variables on career maturity for Asians, American and White American college students. The study indicated that parent involvement would have a significant and negative relationship to career maturity. A MANOVA and discriminant analysis yielded results indicating that the lower status of Asian, American relative to White Americans in career maturity was associated with lower career decision making.

McCartney (2000) studied the effects of two intervention on career maturity of rural high school youth. The major findings of this study showed that Caucasions scored better on career development inventory than his panics.

Dixon and Ammons (2000) examined the self-concept, social support systems and career maturity of female college students. The study revealed that Caucasian and African showed higher intellectual ability than American female students competence when class standing was considered along with race and SES. These variables were not predictive of career maturity.

Galaida (2000) examined the characteristics of career maturity, future time perspective and academic performance among students. The findings indicated that lack of money and limited English proficiency were perceived as barriers. These concerns appeared to have an effect on the career paths.

Powell (2000) conducted a study on Caucasian, Americans and African Americans in order to identify critical career decision points and their effect on career maturity. The results revealed that Caucasian American scored higher than males on career maturity. Hill and Lynette (2001) investigated the career maturity levels of students – athletes as compared to non-athletes with a special emphasis on social differences. The main finding of this study showed that black
athletes were found to have high expectation for entering the profession of sports career than White athletes.

Vatsa (2001) conducted a study on socio-psychological differences of vocational maturity among adolescence of academic and vocational streams. However, students of high SES scored higher on vocational maturity as compared to low SES in both the streams. Significant differences existed in vocational maturity of female and male adolescents of academic stream as well as vocational stream. In both the streams, differences were in favour of females.

Baker (2001) undertook a study in order to investigate the relationship among ethnicity, gender and career maturity of learning support students. Results did not reveal significant differences between Caucasian and African, American students on career maturity. Again, no significant differences were found between males and females on career maturity.

Kumar (2002) arrived at the result that on comparing high socio-economic status group with the average and low socio-economic status groups, the high socio-economic status group showed significant greater concern with an involvement in career choice process, had greater orientation towards work, showed greater independence and had a more realistic compromise with career decision making which are the essential components of career maturity attitude. On taking income aspect of socio-economic status was found that due to specific facilities provided by the government for backward classes, some of the families, as assumed have gone up in the ladder of economic status through vertical mobility but his results showed that in spite of this vertical mobility, their level of career maturity was not above those in the low income group. Low educational status of backward class families was the reason behind this as investment of money for the education and career development is not of top priority in these families.
Gillie and Meegan (2003) found that Socio-Economic Status played an important role in determining the career maturity of an individual.

Murphy (2003) found that a child scoring more on academics would definitely score more on career maturity.

Gibson (2006) examined the influence of social interaction on career maturity and found that positive, meaningful social interaction were critical for career development.

Allison and Cossette (2007) found socio-economic status having a positive effect on career maturity of adolescents. Ijeoma and Omotunde (2009) investigated the relationship between vocational interest, counseling, socio-economic status and age in Edo State. They found a significant relationship between them.

Bozgeyikli (2009) studied the effect of socio-economic status in Turkish youth and came to the result that there was a significant relationship between career maturity and socio-economic status of these youth. He also concluded that socio-economic status affects the way individuals perceive their opportunities and influences their access to educational and vocational development.

Onzima (2010) studied the relationship between parents’ educational level, income level and occupations with regard to their career maturity. He found a positive correlation between the taken variables.

Lemberger (2010) found that parents are positively related to the developmental changes in career maturity. Fleihan (2011) on studying career maturity of grade 12 students found that the students who had socio-economic status were more career mature.
Lee et al. (2012) in their research to examine the relationship between parents, friends and teacher attachment and career maturity for adolescents found parents directly influencing their career maturity.

To sum up on the basis of the empirical evidence presented in this section, it may be concluded that: By and large, SES has a significant relationship with career maturity which means that low socio-economic status can act as a barrier to career consciousness and career maturity. (Spurlock 1984; Kumar 2002) Sporadic evidence of non-significant relationship has also been reported (Weener 1983) There is positive and significant relationship of educational, personal and vocational aspiration with SES (Reddy 1972; Mohagheghzaden 1980) Parental education and occupation have a positive and significant relationship with career maturity (Ugwuh 1984; Farmer et al. 1991) ‘Social Class’ has important influence on career maturity (Gaur 1987) While a mixed picture of significant and non-significant relationship between race, ethnicity and SES has been observed, there is a clear cut evidence that ethnicity has a considerable influence on career aspiration and career maturity (Thomas 1993; Catawzarite 1995)

2.5 STUDIES ON CAREER MATURITY AND GENDER DIFFERENCES

Past investigations on this topic have produced somewhat inconsistent results. A number of studies have concluded that significant gender related differences do exist on career maturity.

Khan and Alvi (1983) found both sexes to be differently vocationally mature.

McNair and Brown (1983) on studying the career maturity of Black and White male and female of tenth grade found them to differ in their respective career maturity.
Smith and Herr (1972) studied the effect of career maturity of vocational boys and girls and found it to be positively significant.

However Crites (1978) found no differences in career maturity of both sexes. Lawrence and Brown (1976) on investigating sex as a predictor of career maturity found no significant difference in the career maturity of both males and females. Still others have provided partial support for females having a slight advantage over male counterparts in selected aspects of affective or cognitive career maturity.

Many reasons have been proposed to explain the presence of gender differences on career maturity including that overall maturation rates favour females especially at lower grade levels, and that female adolescents tend to possess higher verbal ability that is reflected in maturity scores (Super and Nevill 1984).

Jersild (1967) reported that it is easier for the girls to learn their traditional role than it is for boys. Smith (1971) found significant differences in vocational attitude maturity across sexes for eight and tenth grade students and further concluded that females proved to be vocationally more mature than males.

Burkhart (1973) found significant differences in the career maturity of men and women at three levels of education. He also found that girls were vocationally more mature than boys. Wu and Hung (1981) reported gender differences playing an important role in determining the vocational interests of elementary and junior high school students. Holland (1985) suggested gender to be playing an important role in determining the career maturity in his study. Stocking et al. (1992) indicated considerable differences in occupational aspirations between male and female high school students.
Aggarwal (1981) also found significant sex differences for school students on self-appraisal, occupational information, planning and career choice attitudes. Similar results were reported by Currie (1973).

Mintzer (1976) on studying vocational maturity in relation to sex-role found gender affecting the career maturity. Margonoff (1978) in his study on career planning found sex an important variable effecting the career maturity. Dean (1981) reported positive relationship between career maturity and gender of eighth grade students. Pernican (1981) reported gender differences effecting career maturity on studying the relationship of sex and complexity to vocational maturity measures and vocational choice.

These findings were however, not supported by Gribbon (1960). Davis (1962) studied the rural and urban youth and reported that gender differences did not effect their vocational maturity. Smith (1974) did a research on African – American eight grade students and reported gender not effecting career maturity. Dye (1975) found gender differences insignificant on studying the career maturity of college students. Anderson (1976) on studying the career maturity among first year community college students did that find gender effecting career maturity. Pile (1977) found that relationship between gender and career maturity of community college students. Mac Caffrey (1980) reported gender to be insignificant on studying the career maturity in graduate and under – graduate students.

Moni (1979) studied a sample of tenth grade students and reported gender not effecting career maturity. Vornholt (1979) on studying the knowledge of occupation concluded that gender differences were insignificant. Niece and Bradley (1979) in their research found sex to be not effecting the career maturity.

Bhatnagar and Gupta (1988) studied the career maturity of secondary students and reported that gender difference did not effect
their career maturity. Stead (1989) concluded that career decisional states were not effected by gender differences. Kaur (1992) in her research found career maturity to be same in both the genders. Neece (1994) did not find any difference in career maturity arising on account of gender in African-American College students.

Tyler (1965) and Putnam and Hansen (1972), in their research in the area of sex differences in career maturity indicated that females tend to lag behind males in career development and career maturity and may be less likely to be able to make appropriate career decisions.

Martinez (1980) concluded that male students were significantly more career mature in the attitudes towards career decisions than females.

Perez (1980) showed that Puerto Ricou students differed significantly from the White students in one measure of vocational maturity, but sex differences were found to be significant in two out of three of the vocational maturity measures.

Kishore (1981) found males to be more mature in career choices than females. Wu and Hung (1981) indicated considerable differences between male and female high school students.

Grotevant and Thorbecke (1982) came out with a research finding that in males, occupational identity is revealed in acceptance of challenging tasks, where as in females it was manifested in the form of willingness to work hard and avoid competition.

Josan (1983) in his study found that sex emerged as a significant determinant of career maturity i.e. favouring females. However Chand (1979) revealed that there existed no sex differences with regard to career maturity.
Tulsi (1983) conducted a study on differential effect of career guidance strategies on vocational patterns and found that the variable of sex did not contribute towards variance in scores on self-appraisal, occupational information goal selection planning, problem-solving etc.

Weener (1983) in his study related to socio economic status found that gender, curriculum, grade point-average and vocational attitude maturity at grade 12 were significantly, related to vocational maturity at age 24 to 27.

Significant differences were observed between the traditional and non-traditional female groups in the areas of career maturity by Hamer (1983). The former indicated a higher possibility of depending on others for a career decision than the latter. Both the groups were considered to be career mature.

Stewart (1986) showed that males had lower mean scores than females in each of the career development stages. Davis (1986) conducted a study on career maturity and found that female scores surpassed those of males on factors of career maturity such as independent social confidence, family affiliation, peer affiliation, teacher affiliation and substance knowledge accuracy.

In a study on gender differences in occupational aspiration Sommer (1987) found that effects of changing social environment on adolescent aspirations continues to influence students, particularly females, in the expression of less sex-typed occupational aspiration. Female aspiration sharply declined in education and health assistant/nursing categories and to a lesser degree in other female dominated occupation such as social work, home economics and recreation.

Brown (1988) compared the levels of career development concerns among graduate students. The study revealed that the
female students showed higher levels of concerns in disengagement stage.

Shenoy (1989) conducted a study of traditional and non-traditional career choices of 120 subjects, from various occupations that had been labeled as masculine and feminine occupations. She studied the sex role orientation of the subjects and the psychosocial factors related to their choices. She found that psychological sex rather than biological sex influences choice of occupation, whether traditional or non-traditional and also influences three psychosocial variables under the study i.e. job stress, mental health and fear of success.

In a study by Chandna (1990) factors related to career maturity differed for males and females and there was a significant relationship between self-concept and career choice attitudes of adolescents.

Hadded (1990) showed that the age in relation to career maturity was found to be statistically significant, but no statistically significant relationships were found between gender, major field of the study and career maturity of graduate students.

Vondracek et al. (1990) studied that female adolescents are more career-decided than males.

Kaur (1992) reported that self concept and locus of control were significant predictors of career maturity with a mixed sample of boys and girls. No sex differences in vocational maturity were found in this study.

Naidoo (1993) examined the career maturity of African American male and female university students and found greater career maturity in favour of girls. Roy (1993) found a significant difference in career maturity scores for males and females in the
career course and no career course groups. The course-difference showed significant interaction with gender-differences.

In a study on the effects of career course on the career maturity conducted by Robinson (1995), it was concluded that overall females demonstrated a greater level of career maturity than males. Career courses have positive effects on the career maturity of the students.

Melton (1995) and Ranhotra (1996) also reported that girls showed higher level of career maturity than boys. She further concluded that students from the vocational group were found to have better decidedness than their counterparts in academic group. Although women in Luzzo’s (1995) study had higher career maturity scores than men, they were more inclined to perceive role conflicts and barriers as obstacles in their career development process.

Luzzo (1995) in his study investigated gender differences in 401 college student’s career maturity with qualitative measures that included attitudes, decision-making skills and vocational congruence. The study further revealed that females scored significantly higher than males on each of the measures. Qualitative analysis revealed that the perception of barriers may serve as a motivating force in many student’s career development.

Rojewski et al. (1995) examined the impact of gender and academic risk behaviour on the career maturity attitudes and competence of rural adolescents and found significant main effects for gender and academic risk status on affective career maturity. The research showed woman having an advantage over men in some aspects of affective or cognitive career maturity due to sex differences in overall maturity rates.

Ranhotra (1996) concluded that boys scored high on career decision – making, whereas girls scored higher on career maturity and scholastic variables like intelligence and academic achievement.
Touma (1997) conducted a study on ‘Career maturity and high school students: the effects of four variables on the career maturity of high school seniors’. The four variables were gender, race, school type and curriculum. He found no main effect for gender on either the attitude or the variables of competence scale of the CMI. However significant main effect for curriculum on the total score of CMI among the results was found.

Brown (1997) examined whether sex differences exist in career maturity for African – American Urban youth and found females to have higher career maturity.

Smith (1998) examined the perception of students enrolled in vocational education courses (11th & 12th grade students) towards work and career related issues. The results of the study did not yield any significant mean differences between or among the assessed variables i.e. grade level of students, gender and educational levels of mother and father. Bianchi (1998) found that there was significant relationship between gender and career aspirations. Girls in the study did not prefer to enter traditionally male technical careers.

Ohler (1998) studied the career maturity of college students in relation to gender and disability. Females in the study demonstrated higher level of overall career maturity and career knowledge, including decision-making and the world of work.

Powell and Luzzo (1998) evaluated factors associated with the career maturity of high school students. Young men perceived greater control over their decision-making than did young women. Guss et al. (1998) explored various issues relating to the effect of gender on career development. Results demonstrated that career education significantly influenced the non-traditional perceptions of the sixth grade students. But it was also felt that for more meaningful changes in beliefs for gender and self-concept, more comprehensive educational approaches
may be required. The study has important implications for counselling.

Naidoo (1998) in his research entitled, ‘Career maturity: a review of four decades of research’, supported the belief that career maturity development differs by gender. Powell and Luzzo (1998) in their study – ‘Evaluating factors associated with the career maturity of high school students found that the young men perceived more of control over their decision making than did young women.

McCartney (1999) showed that females scored better on the career development inventory than did males. Howell and Ann (1999) in their study on vocational interests, personality characteristics and work values of executives and professionals in placement counselling found that ranking of work values, as ‘the most important’ or ‘least important’ differed according to gender age and industry affiliation.

Porter (1999) studied the influence of a career exploratory curriculum on the career maturity of eighth grade students. The population consisted of students who were enrolled in a rural, North East Georgia middle school. Results revealed that there was no difference between treatment and control groups on competence test, no significant difference between males and females in the treatment group and no difference among racial groups on the attitude scale or competence test.

Barnes (2000) examined the effect of guidance treatment on career maturity of high school students as measured by Career Maturity Inventory in a guidance programme. The results of the study indicated no significant differences between grade levels. Gender did not account for a significant amount of variability in total scores of CMI students.

Pertrone (2000) undertook a study in order to measure competence of career maturity. The findings indicated that the
measures of cognitive career maturity did evidence significant relation with the level of intelligence particularly verbal as oppose to quantitative measures. There was no significant relations between the cognitive dimensions and attitudinal dimension. But there were significant differences between males and females in the study. Females scored higher on measures of career competency and were better equipped to make a career choice than did males.

Kumar (2000) found significant sex differences in the vocational maturity of 10+2 students. The girl students have been found higher on all the measures of vocational maturity. All the differences were significant at .01 level.

Powell (2000) reported that age, gender, ethnic background, grade point average, and employment status are significantly correlated with increases in career maturity. Older students had higher career maturity than younger ones; females scored higher than males; Caucasian Americans scored higher than African Americans; students with higher grade point average scored higher than their counterparts with lower grade point average; employed students exhibited higher career maturity than unemployed students.

The study by Singg et al. (2000) used personal responsibility and career maturity as dependent variables and worker status and sex as independent variables. Results showed that young female students displayed higher levels of career maturity than the young male students, but did not differ on personal responsibility. Sex was not found to be a factor in relationship between worker status and career maturity or personal responsibility.

Vatsa (2001) observed significant difference in the vocational maturity of female and male adolescents of academic as well as vocational streams, differences were in favour of females. Kumar (2002) in his study concluded that non-backward class girls were
more modern in their inclination and liking than non-backward class boys. The gender gap facilitated a more secular – civic orientation, independence and universality of thinking among girls.

Kaur (2002) on the basis of gender came to the result that girls were relatively more mature in respect of career attitudes and competencies. They exhibited higher decisiveness and certainty about their future course of action in respect of vocational placement. She further concluded that they also possessed higher level of intelligence and academic achievement in comparison to boys. They were better able to assess their personal qualities and limitations too.

Alvi and Khan (1983) explored the impact of gender on career maturity and found that females in several age groups have higher scores on career maturity measures than males. Herr and Enderlein (1976) studied the career maturity of Black college student athlete and found significant gender differences. King (1989) on studying a causal model of career maturity found gender playing an important role and females were more career mature. Lokan (1984) in his career development inventory found gender to be significant and favoured females. Luzzo (1995) studied the gender and ethnic differences in the perception of barriers to career development. Females were more career mature in his study.

Westbrook (1984) found girls to be more career mature than boys in his research on career maturity. However, Achebe’s (1982) study in Nigeria reported that males scored higher than females.

Patton and Creed (2001) explored the impact of gender on career maturity and found that boys scored more on career knowledge than girls.

Dhillon and Kaur (2005) studied the career maturity among students of public and government schools and found boys scoring more than girls.
Goldin et al. (2006) in their research concluded that males were more career mature than females.

Heller (2008) in his research found no gender differences related to career maturity.

Cantrell and Taylor (2009) in their descriptive study found that females were more career stable in their career choices.

Hashim (2010) on his research to identify the determinants of career maturity found that there was no significant differences on mean career maturity level by gender.

Yon et al. (2012) conducted a longitudinal study on career maturity growth curve and found an interaction effect between gender and career maturity.

To sum up in the light of research studies evidence it is seen that in most of the cases, females have higher scores on career maturity measures than the males (Burkhart 1973; Josan 1983; Ohler 1998; Vatsa 2001; Kaur 2002) Only in a few cases, males scored higher than the females (Tyler 1965; Putnam and Hansen 1972; Martinez 1980) Few cases however reported that gender did not contribute towards career maturity (Tulsi 1983; Stead 1989; Neece 1994)

2.6 OVERVIEW

Career maturity of an individual is a gradual process that develops through age, experience and grade level as supported by Elder (1971). It increases as he/she grows through different age and grade levels. Also, choice process is not a single and independent act; rather a number of other factors cast their influence on the career behaviour and maturity of an individual (See Dutt 1951; Perry 1995).

Interests is an important factor in determining the Career-
Maturity of the students (See Jacobson 1942; Crosby 1943; Wynn and Bledsoe 2006) A student is interests would be of extreme importance in his selection of courses and in his vocational choice.

High achiever have been found to possess high career maturity. (See Reddy 1971. Walsh and Hanle 1975). Kumar 2000 believed that academic stream students scored higher on maturity is compared to students from vocational stream.

Parental education and occupation along with ‘Social Class’ played an important role in determining the career maturity of an individual (See Ugwuh 1984; Gaur 1987; Weener 1983).

Females have been found to possess higher scores than males on career maturity. (See Neece 1994).

Thus it may be briefly stated that career maturity of secondary school students is still an unexplored area of research in India. Since the results of most of the researchers with regard to interests, a.a. & SES do not provide a very conclusive evidence, the need of such an endeavour is justified with certain hypotheses.

2.7 HYPOTHESES OF THE STUDY

1. There will be a positive and significant relationship of career maturity and interest in the

(i) administrative field of the students.
(ii) enterprising field of the students.
(iii) defence field of the students.
(iv) sports field of the students.
(v) creative field of the students.
(vi) performing (music, drama, acting etc.) field of the students.
(vii) medical field of the students.
(viii) technical field of the students.
(ix) expressive field of the students.
(x) computational field of the students.
(xi) humanitarian field of the students.
(xii) educational field of the students.
(xiii) nature (zoologist, agriculturalist, florist, botanist etc.) field of the students.
(xiv) clerical field of the students.

2. There will be a positive and significant relationship between career maturity and academic achievement of the students.

3. There will be a positive and significant relationship between career maturity and socio-economic status of the students.

4. There will be no significant gender difference in the career maturity of secondary school students.

5. There will be no significant difference in the career maturity of students belonging to general, schedule caste and other backward class category.

6. The secondary school students pursuing vocational courses of study will differ significantly in their career maturity from their counterparts pursuing academic courses.

7. There will be a significant difference in career maturity of high and low achievers secondary school students.

8. There will be no significant difference in career maturity of secondary school students with high and low socioeconomic status.