CHAPTER II

Review Of Related Literature

In the preceding chapter the background of the present research was discussed. The historical background of education in India, the start of vocational education, growth of engineering technology in India before and after Independence etc. were discussed. The first chapter also includes the definitions of the important terms used in the research work as also the objectives, hypotheses and delimitations of the study.

The present chapter deals with the review of related literature. The review of the related literature provides the context for the research problem. The literature review accomplishes several purposes-

- It shares with the results of other studies closely related to the study being reported. (Fraenkel's Wallen, 1990)

- It relates a study to the larger, ongoing dialogue in the literature about a topic, filling in gaps and extending prior studies. (Marshall & Rossman, 1989)

- It provides a framework for establishing the importance of the study, as well as a benchmark for comparing the results of a study with other findings.
Keeping in mind, the above-mentioned purposes, the research literature related with variables under investigation was reviewed and has been reported. As such an attempt has been made in this chapter to present a brief review of research work done so far. Many studies have been conducted on the vocational and technical education at different levels in which vocational aspirations, interest, implementation, performance, problems, achievements, occupations and attitudes etc. have been studied. For the sake of convenience the researcher has divided the review of related literature in two broad levels namely – International level, National Level. The researches done at national level have been further divided into two sub-sections i.e. researches done in vocational and technical field and researches done in the field of achievements/academic success. The researcher has also used the two terms vocational and technical education as interchangeable for the purpose of review of available research work.

2.1-Review of Researches Done At International Level:

Gunderson¹, studied the influence of vocational education on students’ ultimate success. The study was focused to determine if vocational/ business education has influence on a student’s ultimate academic achievement high school graduation. This study consists of comparing students with no vocational/ business education experiences to students with some degree of vocational, business educations. The results
indicated that there was not statistically significant difference in grade point averages, standardised scores, absences and out-of-school suspensions. There was a statistically significant difference in in-school suspensions and withdrawals prior to graduation. All graduates who responded to the survey strongly agreed that vocational/business education had a positive effect on their academic success.

Elaine² conducted a research on Vocational Teacher stress and internal characteristics. The purpose of the study was to examine the relationship between identified teachers’ internal characteristics (role preparedness, job satisfaction, life satisfaction, illness symptoms) and stress in vocational teachers. The major findings of the study indicated that role preparedness, illness symptoms, self-esteem was found to be significant contributors in explaining vocational stress. Vocational teachers who feel unprepared or incompetent in their teaching occupation encounter stress. Vocational teachers who are often compelled to ask others for a job-related assistance experience stress. Those teachers who are unable to adapt quickly to changes in the work environment exhibit higher stress level. Teachers with high self-esteem were found confident in their teaching occupation.

Conroy³ studied the relationship of gender and programme of enrollment to adolescents’ occupational and educational aspirations. Results indicated that students desired professional jobs; many requiring
graduate degrees or licensing. Gender and programme of enrollment were significantly related of ideal job with programme of enrollment being a strong predictor. This study confirmed existing knowledge about unrealistic occupational and educational aspirations held by adolescents. Job opportunities likely to be available to them do not match goals. The study recommended on providing more opportunities for students to explore realities of the labour market and make choices in-line with abilities and interests.

Gordon and Yocke\(^4\) conducted a research on relationship between personality characteristics and observable teaching effectiveness of selected beginning career and technical education teachers. The purpose of the study was to examine the relationship between personality types and teaching effectiveness as measured by the classroom observation keyed for effectiveness research of selected beginning industrial and health occupations education teachers. Slightly more than one-fifth of the respondents had completed a bachelor’s degree. Nine of the sixteen personality types were represented in this study. A majority of the respondents reported a preference for extraversion–sensing–thinking–judging. Overall the research findings indicated that only 41% of the respondents were effective teachers. Eight out of eighteen teaching effectiveness competency statements had significant and positive relationships with the sensing–intuition temperament type. Selected
teachers preparation strategies and in-service programs need to be planned to meet diverse strength and weaknesses of beginning industrial and health occupations education teachers

Connie\(^5\) studied the impact of distance education success in Vocational Course work. The purpose of study was to identify specific factors that keep students enrolled in online course work in a vocational program and how those factors influence student success. The study found a significant difference in the success of student when enrolled in online course. The majority of students enrolled in vocational or certification classes all or most of the time, are influenced by findings such as: quality feedback of instructors, students didn’t have previous computer knowledge; motivation was high for completing the courses because students were career minded.

Sukri\(^6\) explored and described the computer technology competencies perceived as needed by vocational and technical teachers in Malaysia. The study showed that over 50% of the Malaysian vocational and technical teachers had no formal computer technology training. Only 63% of the Malaysian vocational and technical teachers had a bachelor’s degree or higher. The lowest computer technology educational needs of Malaysia vocational and computer teachers were computer-operating skills.
Glover\textsuperscript{7} did a comparison of Alabama citizens’ and career technical education teachers’ perceptions of career and technical education in Alabama. The data available from this study provide the state department of education in Alabama with information to make decision to change career and technical education’s image in Alabama. The data from this study are provided to the state of Alabama and in developing future communications plans for the state.

Joseph\textsuperscript{8} investigated parental perceptions of vocational education: a comparative study between an urban school district and a rural school district in south Mississippi. The findings reported that perceptions of parents towards vocational education, as measured by the questionnaire survey, were quite positive. The samples in both the rural area and the urban area generally believed vocational education is a viable option to prepare students for further education and employment.

David\textsuperscript{9} explored the perceptions of career and technical education of high school seniors’ and factors influencing their decision to attend an area career technical center. This study explored the profile of CTE (Career Technical Education) students with regard to their academic standing and their socio-economic background, examined high school senior’s perception of career and technical education and identified the people and other factors that influence students in their decision-making.
about CTE enrollment. Significant findings indicate that the typical profile of CTE students with respect to socioeconomic status and academic standing would identify a CTE student as performing somewhat lower academically, living less often with parents while more commonly residing without either parents present and being more economically disadvantaged than their non–CTE counterparts. While more CTE students than non–CTE students perceive the Career Technical Education as an avenue to college, both groups identify strongly with the CTE connection to the work place. Even more significantly both groups strongly perceive that Career Technical Center addresses the needs of students from all ability level.

The most influential people upon a student regarding a decision to attend, or not to attend, are friends and parents. CTE staff and high school counselors also play a fairly significant role in influencing CTE students to attend.

Scarpello\textsuperscript{10} studied the effect of mathematical anxiety on the course and career choice of high school vocational – technical education students. Many students who suffer from mathematics anxiety have little confidence in their ability to do mathematics and tend to take minimum number of required mathematics courses, greatly limiting their career choice options. This is unfortunate, especially as our society becomes more reliant on mathematical literacy. This study investigated whether course and career choices were affected by mathematics anxiety. The
findings indicated that there was a negative correlation between mathematics anxiety and career efficacy. More than half of the students had moderate to high level of mathematics anxiety and scored below the 50th percentile on the career choice survey, indicating low mathematics and career efficacy. Fifty-six percent of the students reported that they did not enjoy performing the career related mathematics required by their vocational – technical education lab curriculum. There was a strong parental support for the students’ choice of career-related vocational-technical education courses, but very little parental support was given to the students to pursue academic mathematics courses.

**Taylor**\(^1\) studied the career development stimulator (CDS): A course for school to work. The major findings reported feedback from the counselors focused on the creative concept of the CDS, its practical classroom applications, the relevancy of the curriculum and the role-play activities effectiveness. Students reported that the CDS lessons were invaluable, the course was fun, and the interactive nature kept them interested for the duration. Areas to improve pertain to the insignificance of the web-based teaching adjunct and overwhelming amount of material and activities for the students and counselors to choose and utilize.

**Cartio**\(^2\) conducted a research on motivational factors, expectations and experiences of recent adult Latino immigrants in
vocational training at a community-based organisation. The dissertation is geared towards a deeper understanding of the motivation, expectations and experiences of adult Latino immigrants in a vocational training programme at a San-Francisco community-based school. The findings provide a snapshot of adult Latino immigrants as group seeking to better themselves economically and linguistically through vocational based programs in order to enhance their employability and to provide a better life for themselves and their families as well as a sense of pride in being contributing factors in the country they now call “home”.

2.2- Review of Related Researches Done At National Level:

For the sake of convenience and understanding this section has been further divided into two subsections. First subsection deals with the researches done in the field of vocational and technical area and second sub section deals with researches done in field of Academic Success and Achievement

(i) Review of Researches in the Field of Vocational & Technical Education:

Arora\textsuperscript{13} conducted a study of educational and vocational aspirations of the students of class XII. This study reported about the vocational aspirations of students of class XII against their socio-economic
background. The major findings of this study were that none of the boys whose fathers were doctors, engineers or teachers obtained marks less than 45%. The sex-wise degree of importance of reasons motivating students to pursue higher education was also studied. The reasons regarded most important by boys were a desire to cultivate the right interest, attitudes, morals and intellectual values. The reasons regarded most important by girls were a desire to cultivate the right interests, to seek new knowledge and to have a good social life.

**Bhargava**\(^\text{14}\) investigated into the interests and difficulties faced by the students studying in vocational education stream. The major findings in this research work was that majority of students chose vocational education out of their interest while a smaller section joined it as they could not get admission in academic stream. Most of the students felt that vocational education was purposeful, interesting and important for enhancing employment and thereby leading to national development. The majority of parents opined that their wards were interested in vocational education and that it was better than pursuing academic education as it prepared them for employment and self-education.

**Choudhary**\(^\text{15}\) conducted a study of vocational aspiration and academic choice and their relationship with parental background related to education and occupation. The research project reported that about forty percent of students wanted to be either doctor or engineer. The students
selected science stream for their future career. The study did not find a relationship between occupations of father and occupation choice of students.

Gautam & Vimlesh\textsuperscript{16} designed a study to determine educational and vocational interests of students of class VII to X. The aim of this investigation was to arrive at implications for their future curricula. A significant correlation was found in the preference order of boys of Class VIII to X in both educational and vocational interest areas. No significant correlation was found in the preference order of girls of classes VIII and X in the educational interest area, while a significant correlation was noted in vocational interest area.

Gupta\textsuperscript{17} addressed the problem of funding vocational education at +2 stage in Union Territory of Delhi. It was found that in the Union Territory of Delhi, vocational courses were introduced in schools on the basis of the availability of teachers and infrastructure facilities. Most of the school had part-time teachers to teach the courses. However, enrollment to these vocational courses was found to be increasing as the passed out students were being absorbed in the employment.

Joshi\textsuperscript{18} presented the vocational achievements and problems faced by students who had passed the +2 vocational education examination. The study reported that about one fourth of the total students
who opted for vocational education at +2 stage were either self-employed or employed by other organisation on the basis of their vocational education. Less than ten percent students were doing jobs other than what they had studies and about fifteen percent students opted for higher studies. It was also reported that the students who got jobs based on their vocational qualification were not satisfied because of meager salaries, lack of sufficient skills on their part and job insecurities.

Mishra and Verma\textsuperscript{19} attempted an appraisal of the centrally sponsored scheme of vocationalisation of secondary education in Uttar Pradesh. The research project attempted to assess the status of implementation of centrally sponsored scheme of vocationalisation of education at the +2 stage in the state and to identify the difficulties in implementation of the scheme. It was reported that the management system as suggested in the centrally sponsored scheme had not been fully implemented at the directorate SCERT and district levels. There was dearth of textbook, teacher’s, guides, practical manuals and other instrumental materials for almost all vocational courses. In most of the schools full strength of teachers were not appointed. The majority of schools faced the problem of shortage of furniture and library books.

Mohan and Gupta\textsuperscript{20} studied the factors related to the choice of vocational courses. The study attempted to identify those factors that determine the choice of vocational courses and to compare the attitude of
children who join vocational & technical programmers with those who opt for academic courses. The study reported that some of the significant factors for joining vocational and technical courses are interest and motivation for a particular kind of activity, personal concern, asset, set of value cherished, level of self concept; attitudinal aspect, career maturity and future prospects. As per the study these factors varied in degree from child to child and no generalisation could be made about their relative importance for a child.

Nakatana and Sriniwasan\textsuperscript{21} studied correlation analysis of the performance of students of polytechnic institutions. The problem of the study related to the performance of the students in their school final examination, which frames the basis for seeking admission to polytechnic courses. The study reported that their performance in school final exam was better than that in the polytechnic examination in terms of their total score in the school final examination.

Natrayan and Mukhupadhyay\textsuperscript{22} identified the factors influencing the performance of diploma in commercial practice in woman polytechnic in Kerela. The study was undertaken because a large number of students of diploma in commercial practice in Women’s Polytechnic of Kerela were performing poorly with failure range in 70-80%. It was found that the availability of teachers in the college was inadequate to cover up the laid syllabus. Majority of students also felt that curriculum was very
difficult. Some students reported that they were not interested in the course because they were concerned about the meager employment opportunities.

Pallai and Srinivasan\textsuperscript{23} conducted a survey of the problems of technical students. The polytechnic courses being demanding and taxing, the study was designed to empirically find out some common problems faced by the students in respect of understanding the content, availability of reading materials, suitable placement and knowledge of modern industrial practices. The study concluded that nearly half of the students found it difficult to complete all the laboratory/workshop exercises within the given time frame. The study reported no difference in the perceptions of hostellers and day-scholars about the environment in which they were placed. Compared to the first and the second year students, those in the final year seemed to be more concerned about their employment prospects. Students also felt that they were not so fluent either in oral or written communication.

Robert\textsuperscript{24} studied the socio-economic status and vocational choices of students. The study was an answer to the questions - "Do the vocational choices of higher secondary students depends upon their socio-economic status?" and "Are the vocational choices of the students related to the vocational aspirations of parents?" The result of this study highlights that the vocational choices of the higher secondary students were
independent of their socio-economic status and vocational aspirations of parents. It was also reported that both boys and girls had similar vocational choices as regards agriculture, art, literature, commerce, science and social work.

Pattinthsr\textsuperscript{25} examined the economic parameters and interests of vocational stream students. The study reported that the parents of the respondents marginally differed in their level of income and expenditure. With regards to vocational interests among students, the findings revealed that the students of both sexes differed significantly.

Raizada and Sacheti\textsuperscript{26} conducted a quick appraisal of the implementation of the centrally sponsored scheme of vocational education in secondary education in Rajasthan. It was reported that vocational courses in the state have been introduced mainly in government higher secondary schools. Only eight teachers out of 34 teachers had additional qualifications related to the vocational courses. It was also found that very few teachers attended the special training organised by the NCERT or the state department. A significant proportion of students reported that they didn't have the library and laboratory.

Rathore, Saini and Sharma\textsuperscript{27} centered their study around the prevalent unemployment among youth in general and amongst those technically qualified, in particular. This research project was undertaken
with a view to evaluate the impact of various entrepreneurial assistance schemes launched by different support agencies on technical entrepreneurs. The study reported that the problems faced by the technical entrepreneurs included cumbersome procedural formalities, rampant corruption, non-cooperation attitude, red-tapism and wastage of time. The awareness level of the respondents about the schemes launched was found to be unsatisfactory. The support agencies generally reported that the merit of the project and the qualifications and experience of the technical entrepreneurs were given special consideration while extending facilities under the entrepreneur schemes.

Saraswati\textsuperscript{28} assessed the relationship between personality dimensions and vocational interests of pupils of standard X. The study was undertaken to investigate and find an answer to the question whether various dimensions of personality of school students is related to their vocational interests. It was reported that the personality dimensions and the vocational interests of standard X students and academic achievement were not related either.

Sexena\textsuperscript{29} investigated the relationship between grade level and vocational maturity. The study investigated the pattern of vocational development in Indian students and tried to find out the applicability of developmental view of vocational behavior by studying its relationship to grade level. In the major findings it was reported that the measures of
vocational maturity were characterised by a general development trend in positive direction from Class IX to XII. Class XI students were reported to be more mature than Class X students in respect of independent choice, attitudes, knowledge of self and occupational world, skills of relating capabilities to the demands and requirement of jobs and planning to achieve the goal and being creative in solving problems. The study also reported that Class XII students were found to be more mature vocationally than Class XI students in having greater choice attitudes, more knowledge of the world of work and in planning to achieve the goal.

Sen Gupta, Manjit and Raizada\textsuperscript{30} did an on-the-spot study of the implementation of vocationalisation of education programme in the state of Karnataka. The study addressed the problem of effective implementation of the programme of vocationalisation of education in the state of Karnataka. It intended to help the planners and decision makers in defining future action and taking timely remedial measures for better implementation. The strong points of the programme for implementation in state were: (a) The establishment of a separate directorate of vocational education in 1977 (b) Setting up of the state council of vocational education in 1978 (c) Conduct of district vocational surveys for all the districts. The weak points of the programme for implementation included: (a) lack of efforts in getting all the courses recognised by employing agencies (b) no
self-employment support (d) lack of general awareness about vocational courses.

(ii) Review of Research in Academic Success and Achievements:

Deshpande\textsuperscript{31} investigated the relationship between homework and achievements. According to the study, there is an indication that students who are given homework would perform better.

Barua\textsuperscript{32} studied the influence of capacity of memorisation on scholastic achievement. He aimed to determine common relations, if any, among different kinds of memory, to ascertain the nature of sex differences, in memory abilities and to find out relative influence of different kinds of memory on scholastic achievements. The major findings conveyed that boys and girls were not different with respect to memory for story, sentence, design, digit and total memory. Boys and girls were not different with respect to intelligence and total scholastic achievement.

A study to examine the peer influence and educational aspiration of secondary school students was conducted by Das\textsuperscript{33}. The study reported that peer influence was strong among the students of rural schools in comparison with those of the urban schools. It was also reported that peer influence was strongest among students of boys’
schools and least in the girls’ schools and the educational aspiration of students belonging to urban schools was higher than that of students of rural schools.

A study was undertaken by Deka\textsuperscript{34} to find out the causative factors behind the academic success and failure of the students by mainly comparing characteristics of the high and low achievers. The findings indicated that low achievers always performed poorly in their school examinations and had greater incidence of school failure, low proficiency in certain basic subjects such as vocabulary, spelling, general knowledge and arithmetic were significantly and positively related to school failures.

Dixit\textsuperscript{35} conducted a research on a comparative study of intelligence and academic achievement of adolescent boys and girls studying in IX and XI. It was conveyed in the findings that among class XI students there was no difference in the academic achievement of intellectually superior and intellectually very superior boys and girls. At all the other intellectual levels the academic achievement of girls was superior to that of the boys.

Abu and Pendidikan\textsuperscript{36} conducted a research to determine the effects of the co-operative learning approach of Student Teams-Achievement Divisions (STAD) on the achievement of content knowledge, retention and attitude towards the teaching methods. The results of the
study indicated that cooperative learning, as an instructional methodology provides opportunities for students to develop skill in-group interaction and in working with others that are needed in today's world. It was also found that co-operative learning experiences promote more positive attitudes towards the instructional experience than competitive or individualistic methodologies.

Grover\textsuperscript{37} conducted a research on parental aspiration as related to personality and school achievements of students. The study revealed a positive co-relation between fathers and mothers’ aspirations. There was a significant difference between school achievements of children of low aspiring parents and middle aspiring parents.

Gupta\textsuperscript{38} conducted a study of relationship between locus of control, anxiety and level of aspiration and academic achievement of secondary students. The major findings indicated that locus of control was found to correlate negatively and significantly with academic achievement for the total sample, arts and science, students, boys and girls of the arts and science, boys of the arts group belonging to high, middle and low socio-economic status, boys of the science group belonging to high and low socio-economic status, girls of arts group belonging to high socio-economic status only and girls of science group belonging to low socio-economic status.
Johan\textsuperscript{39} conducted a study of personality profiles of students of Science, Arts and Commerce at higher secondary level of Education in relation to their academic achievement in order to compare the personality profiles of underachieving students studying in science, arts and commerce stream. The study indicated that overachievers in science stream were more reserved, intelligent, emotionally stable, excitable, obedient, sober, conscientious, shy, self-ascended, self-sufficient, controlled and relaxed as compared to the underachievers. The over-achievers of arts-stream were more warm-hearted, intelligent, affected by feelings, undemonstrative, assertive, enthusiastic, conscientious, zestful, apprehensive and tensed as compared to underachievers. The overachievers of commerce stream were more reserved, intelligent, affected by feelings, sober, conscientious and self-assured as compared to underachievers.

Reeta Kapoor\textsuperscript{40} studied the factors responsible for high and low achievement at junior high school level. The study indicated that among both boys and girls the high achievers tended to show a higher level of intelligence than low achievers. The high achievers had better health, social, emotional and school adjustment.

Chand\textsuperscript{41} investigated into the work motivation and job satisfaction of physical education teachers in high school of Himachal Pradesh in relation to existing sports facilities. The Study compared the
three groups of physical education teachers teaching in high schools having high average and low level of sports facilities with respect to “dependence”, “organizational orientation”, “work group relation”, “Job situation” components and “total scores” of work motivation. The major findings are: (1) Teachers posted in low level sports facilities schools possessed higher mean than average level of sports facilities with respect to job situation component of work motivation. (2) Teachers posted in average level of sports facilities school possessed higher mean than high level of sports facilities with respect to authority, co-workers competence and functioning component of job satisfaction. (3) Teacher posted in low level sports facilities schools possessed higher mean than high level of sports facilities with respect to authority, co-workers’ competence and functioning component of job satisfaction. (4) Job satisfaction and work motivations of physical education teachers were not related to the level of sports facilities.

**Conclusion:**

A large number of studies have been conducted in India and abroad on vocational and technical education as well as in the field of motivation and academic achievement/success. The researcher reviewed the related research work done in areas such as Vocational Education and Job Success, Vocational Stress, Knowledge of Education and Job Opportunities among Adolescents, Studies on Personality type and
Teaching Effectiveness, Impact of Distance Education, Success in Vocational Work, Perception of Career and Parental Perception of Technical Education, Studies of Vocational and Technical Aspirations of Students, Studies on Interest and Difficulties Faced by the Students, Studies Related to Socio-Economics Status, Studies related to Employability in Technical Qualified Youth, Studies related to Comparative Analysis of achievements of Boys and Girls etc.

On the basis of the aforesaid review it may be concluded that vocational and technical education are referred to as job oriented courses, consequently, students join vocational and technical education to get a gainful employment immediately after completion of courses. The research findings generally indicate that parental expectations regarding educational and career goal success is quite high. The gender bias regarding education of girl child has considerably reduced. It is seen that parents push their children to earn outstanding grades. It is a general view that academic success is the key to occupational success. The findings also indicate that vocational and technical training is preferred by the parents and students as it enhances employability and better income prospects. In short the findings indicate that parents/siblings/friends serve as role models, they support for career goal achievement, they expect high grades in academics, they support introduction to the positive of teaching the vocational/technical subjects at school level.
References


