Our era is an era of accelerated industrialization and technological advancement. Rational development, in almost all the directions is intimately linked with these two factors. That is why focusing of scientific attention to these vital fields assumes special significance for the developing countries like India. Of course, mere availability of more industry and technology, does not guarantee the automatic economic development of a country. If science and technology are to contribute to the productive processes, special talents must be developed, and people must be trained to apply the knowledge and techniques effectively on a wider perspective of vocational spectrum. The availability of the manpower with necessary skills determine the direction and rate of economic growth. According to Chandrakant (1966) the most important investment that any country can make whatever the stage of its economic development is, in its human resources. Flemming (1965) suggested that investment in trained manpower and manpower budget should be no less essential than capital investment and capital budgets.

A dependable infrastructure of trained manpower has been developed in India to deal with the existing and future problems of national development. The implementation of Five Year Plans placed heavy demands on qualified engineers and technicians in all phases of national growth, i.e., for Industry, Irrigation, Power, Transport, Communication and Defence programmes. The main stress in the Fifth Five Year Plan of India continues to be on the consolidation and improvement of the quality of technical education system.
Technical education had to assume a major role to realise the planned objectives. The level to which the Industrial production of a country can be raised depends among other factors on the quality of its craftsmen and technicians. Technical manpower is one of the main inputs for securing economic growth. It was, therefore, presumed that the annual demand of this level positions will ever continue to increase in Five Year Plans of the nation. According to Chandrakant (1966) India is a test case, since independence in 1947, the technical education has expanded in a big way so much so that the number of polytechnics has increased from 53 in 1947 to 317 in 1976 (Review Committee, 1977). The annual turn out has been increased from 1500 in 1947 to 23000 in 1977 (Shahani, 1977). Still it is estimated that 2 million skilled manpower will be required in the Fifth Five Year Plan (Chandrakant, 1966). A glance on the expenditure on technical education will show the enormous amount is being spent on it. Expenditure on technical education in Four Plans and outlay for Fifth Plan is given here (First three plans - 1940 crores, Fourth Plan, 102 crores and proposed for Fifth Plan, 164 crores - India, 1976). In 1976 only Rs. 50 crores have been spent on technical education (Singh, 1977). It is essential that the money spent, facilities created and resources generated are adequately and wisely utilised so that the objectives for which these are created may be realised.
The proper utilisation of resources and the human potential will always remain a problem to be tackled with. A simple glance on wastage in technical education is just alarming, as shown below:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Source*</th>
<th>Reference Period</th>
<th>Percentage of Wastage</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Perspective Planning Division, Planning Commission</td>
<td>1947-58</td>
<td>19.6</td>
<td>35.6</td>
</tr>
<tr>
<td>2</td>
<td>Education Division</td>
<td>1958-62</td>
<td>24.0</td>
<td>50.3</td>
</tr>
<tr>
<td>3</td>
<td>IAMR Working Paper No. 7/1963</td>
<td>1954-62</td>
<td>20.0</td>
<td>46.0</td>
</tr>
<tr>
<td>4</td>
<td>Engg. Manpower Survey</td>
<td>1958-59</td>
<td>15.6</td>
<td>28.8</td>
</tr>
</tbody>
</table>

The wastage in polytechnic education in the three popular branches (Electrical, Civil and Mechanical) is projected below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Electrical Engineering</th>
<th>Civil Engineering</th>
<th>Mechanical Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>1958</td>
<td>63.5%</td>
<td>60.4%</td>
<td>55.4%</td>
</tr>
<tr>
<td>1959</td>
<td>60.0%</td>
<td>61.2%</td>
<td>51.1%</td>
</tr>
<tr>
<td>1961</td>
<td>55.7%</td>
<td>58.2%</td>
<td>50.0%</td>
</tr>
<tr>
<td>1961</td>
<td>25.3%**</td>
<td>32.9%</td>
<td>18.5%</td>
</tr>
</tbody>
</table>

* Facts About India, IAMR (1966).

** Preliminary Wastage, Partially Refined Rates. The partially refined role of final wastage is defined as the percentage of the number of students of a batch who have yet to complete at least two examinations in 3 Year Course even after at least two or more additional chances have been given to them, to the total number of students of the batches admitted to the first year of the course.
The combined rate of wastage in polytechnics is 28.0% which is the highest in comparison to other areas of technical education (Sundram 1975). Only 47% of students complete the Diploma Course in prescribed time limit. It has been reported (Vohra 1975) that 48% of the polytechnic students are under-achievers.

Even the cost-benefit analysis of the polytechnic education remains negative for few years, after completion of the course (Kidder, 1973). The total expenditure per year for a single student is Rs. 1907/- (Rs. 6000/- Approximately for whole course) on the state exchequer. The admissions made in session 1975-1976 in polytechnics in India was 45000 whereas the turn out expenditure on these figures on the State exchequer if calculated, it amounts to lakhs of rupees. It is quite exorbitant amount being spent on polytechnic students. Can India afford to spend so much in this way on the technician education? Technician is the linking bond between the engineer and the craftsman. He plays a key role in bridging the gap of the two extremes in industry. His role is crucial in maintaining and running any technical organisation.

Who is a Technician?

According to Technical Committee of I.L.O. (1966) a technical employee whatever his designation, who occupies a middle level position between craftsman and the technologist; whose work requires the application of technical knowledge higher than that of skilled worker but below the level of technologist; whose work moreover requires proficiency in the skills higher than that of a skilled worker but lower than that of a technologist.
These features of the technician's job and status have been expressed by Commonwealth Education (1966) and Damodaran Committee (1971). The salient features are:

(a) Erecting and commissioning of engineering structures and equipment.
(b) Interpreting engineering designs.
(c) Maintenance and repairing of engineering plant and machinery.
(d) Assisting engineers in drawings and development and research activities.
(e) Inspecting and testing the products.
(f) Sales and after sale service.
(g) Estimating, purchasing and accounting.
(h) Contracting
(i) Production
(j) Work study and maintenance of human relations.
(k) Control and supervision.

Social Skills

Sen and Mukherjee (1965) have given the following social skills in the job description of the technician in addition to technical skills as given in the above mentioned reports:

(a) Leadership qualities
(b) Motivation skills
(c) Methods of establishing cordial industrial relations
(d) Ability to communicate reports and instructions.
(e) Methods of improving employees' morale.
Thus technician is required to do general ability tasks, special ability jobs, and maintain human relations in his area of work. He does semi-professional function of an engineer (Sen and Mukherjee 1965).

Training of a Technician

Technicians are mostly the products of the three years diploma courses in engineering and technical institutions, generally called polytechnics. The candidates who pass higher secondary or equivalent with science subjects (Science, Mathematics) as elective can only seek admission in the technician courses in India. There are more than 26 types of technician courses (Education Year Seminar, 1971). But the most popular are Electrical, Civil and Mechanical Engineering. Out of the total number of polytechnics, 86% of these Institutes offer these courses. Out of the total sanctioned admission strength for all the courses, 92% is taken by the Electrical, Civil and Mechanical Engineering branches (Education Year Seminar, 1971). After the completion of the three year courses, the successful candidates are awarded diploma in technical education, generally by the Board of Technical Education of the respective state which is the examining body of such courses. These courses are thus designed to train the technicians who will eventually occupy middle level supervisory positions, i.e., foreman, overseers, supervisors, technical assistant, shift incharge, section officer etc. in technical organisations.

Who Comes to Join the Technician Courses:

With increase in population to sixty million, the youth forms the maximum and major group of the Indian masses. Though the
facilities for the various types of college level courses have been increased even then these do not fully cope with the requirements of lakhs of adolescents coming out of the schools. So flocks of school leavers throng to the available gates of the further education, rarely giving serious consideration to the nature of the course and their suitability to its requirements.

In an analysis, Education Commission (1966) found that 72% of the polytechnic students come from non-agriculture group. These students pass high school education with a view to go for higher education in engineering colleges. But failing to make the requisite grade partly because of economic circumstances they drift to the polytechnic education. Few students have any occupational interest in the industry before joining the polytechnics. The national average of the quality of students admitted in polytechnics are given below (Chandrakan, 1971).

<table>
<thead>
<tr>
<th>Marks in qualifying examination</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students admitted with 60% and above</td>
<td>10%</td>
</tr>
<tr>
<td>Marks between 50% to 60%</td>
<td>32%</td>
</tr>
<tr>
<td>Marks ranging from 45% to 50%</td>
<td>31%</td>
</tr>
<tr>
<td>Below 45%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Even if we (Chandrakan, 1971) regard 50% as the minimum scholastic level needed for the technical courses for diploma level, 58% of the students entering the polytechnics are below this level even.
Selection Procedure

The quality of technicians prepared by the polytechnics will greatly depend upon the quality of the students admitted to the courses. At present, it is observed (Damodaran, 1971) that there is no uniform selection procedure. The selection of a student into polytechnic courses is based on one or more of the following criteria:

1. Marks obtained in the qualifying (Higher Secondary or Equivalent Exam.), i.e., Eleven Year Schooling.
2. Weightage for Co-curricular activities.
3. Performance in the personal interview.

Different polytechnics in different states follow the above said procedure of selection and admission, arbitrarily. There are wide variations of emphasis of these factors from state to state.

Rationale for Scientific Selection:

Chandrakan (1971) has summed up the considerations that generally prevail upon the students to choose polytechnic courses. It seems that thousands of boys are thrust into some particular job such as technician by the ambitious parents, regardless of their differences and aptitudes or even lack of them. He further adds that if I am to sum up this matter, happiness in one's work depends on two things - ability and interest. It must be something you wish to do which will consequently satisfy some emotion. The real happy man is one who finds what must he do to earn his living.
is also of absorbing interest. He further adds that if the structure of diploma courses, curriculum, organisation of technician specialities and skills are all important aspects of the polytechnic system; equally important, if not more so, is the polytechnic student. In the final analysis it is he who has to benefit from the system created at great cost and effort.

The faculty of the polytechnics too are not satisfied with the quality of the entrants (Education Commission, 1966) to diploma courses in Engineering. Lack of motivation and aptitudes for technical studies also add to their difficulty, particularly when none of these factors is taken into consideration for admission to the polytechnics. The selection of the potential technician should be the joint venture of the employees and the polytechnics, so that a young person may be guided into the type of job for which he is most suited in accordance with his abilities and interests and placed on the type of the courses in which he is most likely to succeed (Damodaran, 1971). If such tasks are to be carried through effectively, much more refined placement procedures are essential. This is possible if the appraisal of the correlates required for successful technician is systematically made on standardised procedures through the use of measurement techniques.

Appraisal and Guidance Facilities:

Most of the students entering the polytechnics know very little about themselves, their abilities, potentialities and much less about the nature, aims and types of courses of polytechnic
education (Vohra, 1975). Consequently, majority of students join the polytechnics without defined motives and adequate occupational choices. There is hardly any organised agency or system available for the guidance of the young adolescents leaving the schools. According to Education Commission (1966), 81% of the parents of the students who join the polytechnics belong to low income group (Rs. 50 to Rs. 300). These people do not have any adequate information of guidance procedures to help the growing adolescents. However, it is necessary for the growing adolescents to make occupational choices at some stage.

In India, the system of education imposes on the student the need to make a choice of the group of stream of studies he has to take after passing the delta class. This will be probably the group of occupations he would be expected to take for further studies. With the introduction of 10+2 system of education in India from 1977, the student will be required to decide the main stream of education that he has to pursue at the end of 10 years of school education. Thus in the absence of availability of guidance services it is all the more important that thorough probe may be initiated so that the abilities and potentialities which may be suitable to different types of occupational courses are investigated. With such investigation it may be possible to reduce wastage in occupational courses. On the other hand it may also be plausible to find relationship of variables of successful polytechnic students. The prediction of success may be made even at the time of selection of the student to such courses. This may
also help the growth of the economy of the country.

Human beings have characteristics and attributes which make each individual unique combination of the various abilities and potentialities. Individuals not only differ in their physical make up but, they also differ in their psychological make up, personality patterns, adjustment styles and considerations for choosing different courses and occupations. Dunnette (1969) said that all people do not possess most suitable attributes desired for all the jobs. Nor all people are having attributes certain unsuitable for all jobs. So, some may be equipped to do/jobs better, whereas others may be poorly adopted to these jobs. Thus, it will be most desirable that the various human potentialities are measured scientifically and their relationships are established for the suitability to various vocational courses. It will be interesting for us to know how the occupational decisions are made. Some theoretical attempts have been made to explain the ways on which people make occupational decisions.

Theories of Occupational Choice:

Various theories have been put forth which explain the processes and ways people may use for making the choices of occupations that they may take up. According to Crites (1969), the theories can be classified on the basis of their major characteristics or emphasis they lay in their explanations which are as follows:-

A. Non Psychological
B. Psychological
(A) **Non-Psychological**:

These theories explain that the individual enters an occupation solely because of the operation of his environmental factors. The individual's characteristics such as intelligence, personality, interests and such abilities are considered to be neither directly nor indirectly related to the choice of his occupation. We will consider three theories that support the effect of environment on the choice of an individual: (a) accident theory, (b) economic theory, and (c) sociological theory.

(a) **Accident Theory**: This theory explains that the person takes up an occupation first by an accident or so called by 'chance' (Miller & Form, 1951). Chance refers to experiences which are unplanned, so far as the individuals themselves are concerned. Ginsberg et al (1951) say that chance means 'an unplanned exposure to a powerful stimulus.'

The people may join the vocations without any preplanning and information regarding the occupation, they have joined. Caplow (1954) observes that beside other factors, "then too, error and accident often play a larger part than the subject himself is willing to concede". This is mostly true to the Indian conditions of the ways, the choice is made. Super (1957) however, is of the opinion that, "given sufficient knowledge there is no such thing as chance".

(b) **Economic Theories of Vocational Choice**: These theories begin with a consideration of the distribution of workers in various occupations and attempt to explain the basis of the differences in
number of individuals which choose and enter them. The classical economists of 18th century, led by Smith & Mill, maintained that it is the net monetary gain which accrues to the individual from entering an occupation. Parnes (1954) reported that a third of the sample had not chosen the job in the real sense, but had either drifted into it or taken it because they could find no other. So many times the choices for occupations are made out of personal reasons.

(c) Cultural & Sociological Theories: Super and Bachrach (1957) say that in selecting an occupation, the individual is more or less directly influenced by several social systems: (i) culture, (ii) sub-culture, (iii) community, (iv) school and family. Each of these affect the individual's choice in a somewhat different way in varying degrees of importance (Lipsett, 1962).

(i) Culture: Crites (1969) reports that the culture in which the individual is raised affects his vocational choice. It may be evident that in India, even now, the caste of the person plays a significant share in the vocational choice. Sons follow the occupations of their parents. Many changes are observed in the cultural pattern of the society and corresponding to these changes people make choices in broader spectrum of the society. In U.S.A., where a society enjoys freedom in ways of living, the people also have freedom to make choices depending upon the vocational set of the country.

(ii) Sub-Culture: The social class of which the individual is a member develops a class consciousness and identification, so
he sets the corresponding vocational aspirations for himself (Sewell, Haller, Strauss 1957). Hollingshead (1942), and Lipsett (1962) support the view that people of elite class would tend to choose the occupations at professional and executive levels; contrary to this, the people at low status class will have aspirations for skilled and unskilled occupations more often.

(iii) Community: McGuire and Blockma (1953) emphasised the profound effect of an individual's ethnic group, his neighbourhood and immediate society on his vocational choices.

(iv) School: Miller and Fox (1951) note that through school the individual acquires a system of values which directly influence his vocational choice. Caplew (1954) also supports the view that school puts shaping influence by various types of experiences on the learner. Mohan and Walia (1976), Mohan and Randhawa (1977) also found that the nature of occupational choice was determined to a great extent by the type of school the individual went to. School is considered as a very important agent of socialisation whereby the individual acquires the modes of behaviour and living which influence his decisions and the vocational choices.

(v) Family: Ginsberg et al (1951) and Super (1953) suggest that family plays a fundamental role in the decision of vocational choice of the individual. Roe (1957) emphasises that it is the psychological atmosphere in the family as being important in the vocational choice of the individual. The various expectations of the family, the needs of the family and influence of
elders and other such reasons impel the individual to make the choice of the vocation.

The sociological theories have emphasised too much on the external circumstances rather than the individual himself for the vocational choice. The motivations of the individual, intelligence, personality pattern and interests have completely been ignored by these theories. Man is not the puppet in the hands of the natural circumstances for such crucial decisions of his life.

The actions and decisions of a person are always to some extent influenced of what he is capable of - his needs, personality and interests. As far as any vocational decision is concerned, the factors ignored so far by the aforesaid theories should also find a place in the explanation of the vocational behaviour of the individual.

(3) Psychological Theories of Occupational Choice

The psychological theories of vocational choice consider the individual as the crucial variable in this decision making process. The main assumption is that the individual has freedom to choose an occupation, he can exert at least medium control over his vocational future. These theories can be grouped as: (1) Personality theories, (2) Developmental theories, (3) Learning theories, (4) Trait and Factor theories. Each of these theories have their own bias in explaining the process of occupational choice.

(1) Personality Theories: The various theories of occupational choice related to personality development are discussed below:
A central proposition in orthodox psychoanalysis is that the individual adjusts to social expectations by sublimating the desires and impulses which he experiences as a result of his biological nature. The basic assumption underlying the psychoanalytical explanation of vocational choice is that one's choice of work reflects one's personality. Brill (1949) views that "every activity or vocation not directed to sex in the broadest sense, no matter under what guise, is a form of sublimation. The behavior he adopts to adjust with life situations make his character or personality and the basis for his selection of occupations. Bordin (1963) and associates emphasize the importance of early childhood experiences which they believe influence the type and mode chosen for obtaining the gratification of basic impulses and needs.

### Summary of Need Gratifying Activities

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Physiological Functions</th>
<th>Occupational Expressions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naturant</td>
<td>Reading, protecting and promoting the growth of people, animals, plants.</td>
<td>Social work, nursing, teaching.</td>
</tr>
<tr>
<td>Oral aggressive</td>
<td>Cutting, biting, chewing devouring.</td>
<td>Manufacturing, construction, mining.</td>
</tr>
<tr>
<td>Manipulative</td>
<td>Physical power, influencing, persuading, threatening, seducing.</td>
<td>Computer operations, sales, advertising</td>
</tr>
<tr>
<td>Sensual</td>
<td>Sight, touch, taste and sound.</td>
<td>Artistic and creative occupations.</td>
</tr>
<tr>
<td>Anal</td>
<td>Acquiring, timing and hoarding, smearing.</td>
<td>Accounting, bookkeeping, painting.</td>
</tr>
</tbody>
</table>
(b) Roe's Need Theory (Need and Early Determinants of Vocational Choice): Roe (1951(a), 1951(b), 1953) had tried to explain the vocational choice on the basis of the attitudes, interests and capacities developed in early life in interaction with people around the child. These attitudes and interests find expression in his personal relations, emotional reactions in his activities and in his vocational choice. Roe (1953) explained the differences in personality traits of biological, physical and social scientists on the basis of type of interaction they have with people and early experiences.

In her later viewpoint, Roe (1956) explains the occupational choice on the basis of need hierarchy theory of Maslow (1954). This theory gives primary attention to the desires and wants which stimulate the individual to prefer one occupation to another. The most important need theory is the one formulated by Roe (1956, 1957) and Super & Bachrach (1957). The specific needs that Roe relates to
Vocational choice are those defined by Maslow (1954). These needs operate in a hierarchy from lower order to higher order needs. The higher order needs (understanding, self actualisation) become effective when lower order needs (hunger and safety) have been satisfied. Roe (1954) maintains that need for self actualisation is central in the choice of an occupation, all that a man can be, he must be, if he is to be happy. The more fitted he is to do, the more he must do."

She concluded (1957) that childhood experiences are related to the vocational behaviour of the individual.

(e) Hoppock's Composite Theory: A need approach - Hoppock (1967) suggests that in the extreme of some acceptable and well formed theory, a workable broad outline for practical purpose of guiding the students; this approach will be quite functional. Hoppock presents his theory as series of speculations about why people behave as they do when they are trying to reach an occupational decision. In his book Occupational Information (1967), he puts the postulates.

1. Occupations are chosen to meet the needs.
2. The occupation that we choose is the one that we believe will best meet the needs that most concern us.
3. Needs may be intellectually perceived or they may be only vaguely felt as attractions which draw us in certain directions. In either case, they may influence choices.
4. Vocational development begins when we first become aware that an occupation can help to meet our needs.
5. Vocational development progresses and occupational choices improve as we become better able to anticipate how well a particular occupation will meet our needs. Our capacity thus to anticipate depends upon our knowledge of ourselves. Our knowledge of occupations and our ability to think clearly.

6. Information about ourselves affects occupational choice by helping us to recognize what we want and helping us to anticipate whether or not we will be successful in collecting what the contemplated occupation offers to us.

7. Information about occupation affects occupational choice by helping us to discover the occupations that may meet our needs and by helping us to anticipate how well satisfied we may hope to be in one occupation as compared with another.

8. Job satisfaction depends upon the extent to which the job that we hold meets the needs that we feel it should meet. The degree of satisfaction is determined by the ratio between what we have and what we want.

9. Satisfaction can result from a job which meets our needs today or from a job which promises to meet them in future. Occupational choice is always subject to change when we believe that change will better meet our needs.

He uses the term needs in a very broad sense to describe the inner tensional states. He has tried to be quite applied. As a result of his particular orientation, Hoppock accords primary importance to the role of occupational information in the career development process.

(d) Holland's Personality Theory of Vocational Choices: The person is the product of the interaction of his particular heredity with a variety of cultural and personal forces including peers, parents, physical environment, which he refers as the individuals' adjutive
orientation. In the act of selecting a vocational choice, the individual in a sense "searches" for situations which satisfy his hierarchy of adjutant orientations.

1. **Summary of Holland’s (1959, 1966) Personality Type and Environmental Models**

<table>
<thead>
<tr>
<th>Personality Type</th>
<th>Description Orientation</th>
<th>Typical Occupation Environments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realistic (Motoric)</td>
<td>Enjoys activities requiring physical strength; aggressive, good motor, lacks verbal and interpersonal skills; prefers concrete to abstract problems, unsocialable etc.</td>
<td>Labourer, machine operators, aviators, farmer, truck drivers, carpenters etc.</td>
</tr>
<tr>
<td>Intellectual</td>
<td>Task oriented, 'Thinks through' problems; attempts to organise and understand the world, enjoys ambiguous work tasks and interpretive acts, abstract orientation etc.</td>
<td>Physicist, anthropologist, chemist, mathematician, biologist etc.</td>
</tr>
<tr>
<td>Social (Supportive)</td>
<td>Prefers teaching for therapeutic roles; likes a safe setting; possesses verbal and interpersonal skills, socially oriented, accepting of feminine impulses etc.</td>
<td>Clinical Psychology, Counsellor, foreign missionary, teacher.</td>
</tr>
<tr>
<td>Conventional conforming.</td>
<td>Performs structured verbal and numerical activities, subordinate roles, achieves goals through conformity.</td>
<td>Cashier, statistician, book keeper, administrative assistant, post office clerk.</td>
</tr>
<tr>
<td>Enterprising (Persuasive)</td>
<td>Prefers verbal skills in situations which provide for dominating, selling or leading others.</td>
<td>Car salesman, auctioneer, politician, master of ceremonies, buyer etc.</td>
</tr>
<tr>
<td>Artistic (Aesthetic)</td>
<td>Prefers indirect personal relationship prefers dealing with environment problems through self expression in artistic media.</td>
<td>Poet, Novelist, Musician, Sculptor, playwrights, composers, stage directors etc.</td>
</tr>
</tbody>
</table>
The conception of vocational choice as developmental process was initiated in 1940. According to this explanation the selection or decision of choosing an occupation is taken at different stages during the life span of the individual and this is a continuous developmental process from childhood to early adulthood. Following theories contribute to this view of occupational choice: (a) Ginsberg Theory, (b) Tiedman’s Viewpoint, and (c) Super’s Viewpoint.

(a) **Ginsberg’s Theory of Vocational Choice**: Ginsberg, Ginsburg, Axelrad and Herma (1951) proposed this comprehensive theory of vocational behaviour or what they called a preliminary approach to a general theory. They concluded that process of occupational decision making could be analysed in terms of three developmental periods on the basis of the ways an individual ‘translates’ his impulses needs into an occupational choice. (i) First Stage Fantasy (6 years to 11 years), at this stage a child thinks about an occupation in situations by playing make-believe work roles and may be called ‘fantasy choice’. At this stage choices are arbitrary and based on pleasure principle without reference to reality, abilities and potentialities. (ii) Second Stage Tentative (11 years to 17 years) - This is characterized by the recognition of the problem of deciding an a future occupation. In the beginning of the state the child begins to select activities primarily in terms of his likes and dislikes and interests. Thereafter at 14 years, the individual begins to evaluate his
ability to function in areas in which he is interested and thus starts to become aware of external factors such as different occupations, different salaries and different types of training and education. Then the adolescent becomes aware of the range of factors which have to be taken into account in making an occupational choice. Finally, in the transition stage, the individual begins to shift from subjective factors - interest capacities and values to reality conditions. (iii) Third Stage - Realistic: The realistic period begins roughly at about eighteen years and is composed of the stages of exploration, crystallisation and specification. At exploration stage, the young adult tries to acquire the experience and education which he needs to resolve his occupational choice, and during crystallisation stage the person commits to vocational objectives. Finally, individual is able to synthesise the many forces, internal and external that have relevance to his decision.

The occupational choice thus is not a sudden decision but a developmental process. Gelatt (1962) and Hilton (1962), too have outlined a concept of decision making process. Milton (1962), says that the individual's efforts to reduce dissonance as preceding and facilitating decision making.

Whereas Festinger (1957) states that dissonance follows choice. Goldstein (1965) says that individual is vocationally uncommitted not simply because of lack of information of himself and the world but because making decision or commitment is strong anxiety arousing. Tucci's (1963) study comes in conflict with the
Ginsberg's developmental stages, as the person had made decision by 14 years to 15 years. Fluglers (1968) rejected Ginsberg's assertion that effective occupational choice results from the compromise between an individual's personal values and occupational information.

(b) **Super's Developmental Self Concept Theory**: Super (1963) views an individual's occupational preference as an attempt to implement a self concept. He maintains that a person selects an occupation whose requirements provide a role consistent with his self image. The process by which self concept is developed are identified as (i) formation, (ii) translation, (iii) implementation.

The formation stage further includes exploration of the world and the self, self differentiation, identification, role playing and reality testing. Translation stage operates in three ways - firstly through identification with an adult and secondly through self experience, thirdly, through awareness that one has attributes which are important in a certain field. The implementation of the self concept is the end result of this process. According to Super (1957), the process of forming a concept of self begins in infancy, 'This is essentially an exploratory process which goes on through the entire course of life'. This theory shows some general correspondence with Ginsberg's viewpoint.

(c) **Tiedman's Theory**: According to Tiedman, the process of vocational development is determined by each of several decisions with respect to school, work, and life which a person makes as he matures. The act of decision making may be separated into two
aspects: (i) Period of Anticipation or Preoccupation and period of implementation or adjustment.

The period of anticipation has four stages: (i) Exploration, (ii) Crystallisation, (iii) Choice, (iv) Specification. Exploration is characterised by becoming familiar with many activities and then considering the alternatives which may be available. In the second stage patterns begin to emerge in the form of alternatives and their consequences. In the 'Choice' stage the behavioural system of the individual is reacted to act upon the decision. In the final stage specification, "former doubts concerning the decision dissipate; as the image of self in relationship to goal is perfected". With the making of an actual decision, the anticipation or pre-occupational stage ends and the next major period is begun. Secondly, there is period of implementation and adjustment which encompasses three stages - induction, reformation and integration. The succession of these stages represents a progressive realisation of the individual's goals and advances in his chosen position.

The distinguishing feature of developmental theories is the recognition that decision-making behaviour begins to develop in childhood and continues throughout adulthood.

Conceptualisation of occupational theories as a developmental process have their origins in the studies of life stages which were begun by Buchar and Lazarsfeld (Super, 1957). The developmental quality of these theories is clearly evident from the fact that vocational choice is run as a process, that the process is a systematic one, that it is predictable and occupational choice culminates in an eventual decision to enter a specific occupation.
In the happenings of the life, these stages may not occur so smoothly as presumed. The vocational choice may not even match with the vocational selection, which depends on the availability of the choice so made. The selection, may be affected by various other variables of job context.

3. Learning Theory of Occupational Choice

These theories explain that the vocational choice of the student is acquired as process of his daily learning experiences in school and home. O'Hara (1968) suggests his theory in which he views career development as a learning process. He suggests that changes in vocational behaviour are the result of cognitive changes, thus the students come to know how to become doctors, electricians, teachers and all vocational learning is a function of motivation. The student acts to satisfy his vocational needs. His choice of subjects for further study is the realisation and planning of relationship of educational and vocational course. He suggests that the students can be helped to learn and understand the relationships of various variables and related attributes of decision making process. In order that vocational learning may take place, a proper learning environment is required. The basic idea of the theory is that the career development of students can be facilitated by involving them in various learning situations, which have occupational implications.

Miller (1968) also made an attempt to relate learning theory to vocational behaviour. He suggests that such a theory of vocational behaviour can contribute to both understanding and to theory development in the area of vocational decisions.
Learning theory approach to vocational decisions is based on the past history of the student, his present situations and present motivational status. In this way teachers and parents can play a significant role in manipulating the environments for the students and predictable changes in the vocational behaviour of the student may become possible.

The control over the environment as envisaged by this viewpoint is too much to be expected because of the complexity of the environment. There are infinite number of variables which may be influencing the environment from time to time which may not be in the control of parents and teachers.

4. Trait and Factor Theories

These theories are based on the psychology of individual differences and the analysis of occupations. Trait and Factor theories emphasize the relationship of an individual's personal characteristics to his selection of an occupation. Since the individuals differ in their aptitudes, interests and personalities, they tend to join the different occupations. Parson (1909) had pointed that there is three steps process which an individual goes through in choosing a vocation (i) Clear understanding of himself, i.e., his aptitudes (abilities, interests, ambitions, resources, limitations and their causes, (ii) knowledge of the requirements and conditions of success, advantages and disadvantages, compensations, opportunities, advancements and other benefits in different lines of work; (iii) true reasoning on the relationships of these two
sets of information. In other words the individual compares his abilities with those demanded by the occupation and agrees on the one he matches best.

**Evaluation of Theories of Vocational Choice**

In the preceding section the major theories of career development and occupational choice were presented. Little attempt was made to evaluate these theories.

It is fair to say, without being over critical that the formal adequacy of the theories leaves much to be desired. However, these theories display major similarities which may emphasize the same kinds of critical agents and periods. The main differences of theories are differences of emphasis (Osipow 1968).

The non-psychological theories play heavy on the external factors and phenomenon with no consideration to the personal abilities of the individual which he always makes use in solving his daily problems. On the other hand, psychological theories have individual and his attributes as the crux of the problem of vocational choice.

The personality theories assume that vocational choice takes place at a given time. The underlying assumption of this approach is that individuals select their jobs because they see potential for the satisfaction of their basic personal orientation. Career choice represents an extension of personality and an attempt to implement broad personal behavioural styles in the context of one's career. But it is too much to expect that the
total personality style can be found in a job nor the jobs have been oriented to match the personality of the person. The essence of developmental theories is that decision making behaviour begins to develop in childhood and continues throughout adulthood. This process is gradual, passes from one stage of life to the next, it is predictable, it crystallises and terminates in the final choice of the vocation. This explanation perhaps assumes that life is very smooth. In reality, during the life span of the individual, he has to pass through various mental turmoil which may influence the individuals decisions at various stages. The availability of the vocation that he wants to choose and his actual selection of the occupation are not in the hands of the chooser.

Trait and factory theory approach has enjoyed much prestige in the field of Guidance and Counselling. This theory has sufficient practical and applied aspects to its credit. The use of various tests for measuring trait or correlates provide useful information for the success of the person in vocational courses or jobs. The only danger lies in the over emphasis of these tests by the untrained individuals for the choice and success on job.