CHAPTER ONE

INTRODUCTION
Of all the judgments one makes in life, none is more important than the one makes while seeking, and selecting a career. One’s choice of vocation has to be based on good and realistic decisions and if one does not make a proper decision, it results in individual as well as national loss. From this viewpoint, the planning in the field of education and vocation are of paramount importance. The educational decisions pave the way for the future decisions taken by an individual in the field of work. Hence, education must be related to the needs and aspirations of people. The educational decisions taken by adolescents at the right time i.e. at the high school stage help in achieving this goal and also checks the loss of resources available, thus helping the society and the country.

In 1969, Super wrote that adolescents are in a crucial stage of exploring and confirming their career plans. Fast forward 30 years and Arnett’s (2000) research has concurred with Super and suggested that the emerging adults of today view their career potential as limitless, with or without career planning.

In Indian context, the choice of occupation is a greater problem than in the Western world, where the traditional work ethics have undergone a big change. With increasing affluence and reduced fear of economic insecurity, youth can look for a job that promises personal satisfaction. On the other hand, their Indian counterparts work primarily for economic prosperity. The personal fulfillment in job is limited to a handful only.

The Government of India also realized the importance of career education in 1968 and accepted 10+2+3 system of education as national objective. In the present education system of 10+2+3, career decision starts taking shape at the pre 10th stage and it is expected that by the end of 10th class, clear and distant picture of career decision would emerge. Research evidence suggests that at 10+2 level, although students have made a choice of Academic (Arts/Science/Commerce) or Vocational steam, still a large number are tentative and undecided about their respective choices (Ranhotra, 1996). They continue to pursue their studies in this manner, whether it is B.A.
B.Com / B.Sc. / Post-graduation, Double Post-graduation and even Doctoral research without any career goal in mind. It is therefore, essential that at the plus two level and undergraduate level, mature selections of respective educational courses and mature vocational decisions are made. Because if this, unplanned and immature pattern of career decisions continues as today; it may lead to wastage of human resources and in turn would thus produce heavy burden on Indian economy.

Mature vocational decisions are also needed at undergraduate level because graduation is the foundation stone for building every successful careers be it civil services, army, teaching profession, law, banking etc.

For this, proper vocational planning is needed through the Career decision-making stage of youth taking care of their interests and unique personalities variables to make relevant career related decisions. (Borchard, 1995) because one must be interested in one’s vocational pursuits and qualified to meet the demands of the job to attain the best person-environment fit possible. For many, both interest and ability are marked on a continuum.

Hence understanding Career decision-making variables, personality dimensions, and vocational personality variables in the process of career development appears to be important for emerging adults in higher education. Further access to this information will assist college career counselors in developing career planning resources that are more aligned with students' needs. Research evidence suggests that career indecision, which may be broadly defined as the inability to select and commit to a career choice, is a common problem among college students, with some estimates as high as 50%. (Gianakos, 1999) In essence, understanding the level of fit between a person and his or her environment would not only improve person self-awareness but also assist students in better utilization of their time and resources in college, which could potentially decrease the length of time necessary to complete a degree and overall cost of the degree, and thus ensure an individual’s timely entry into the workforce.
DEFINITIONS OF THE TERMS USED
(w.r.t. career)

Career

In everyday usage, the term career often seems to be associated with upward mobility, advancement or getting on via a series of related jobs. Traditional views of career, often associate the term with the professions where a clear series of steps can usually be identified (Super and Hall, 1978).

A career is seen as including the sequences of preoccupation, occupational and post occupational positions that a person has during the course of life time.

Hence, career is the life long sequence of work, education and leisure experience (Leeman, 1984). Career may be defined as the sequence of positions, jobs or occupations which a person has filled during the course of his /her life; these may differ considerably or they may all be in the same field with or without vertical movement.

Leeman (1984) states that term career has been widely misused in blurring the meaning of the words such as: occupation, vocation, job and position. Though these terms are used interchangeably, still they differ in their meanings. Arthur, Hall and Lawrence (1989) stated that career is the evolving sequence of a work’s experience over time.

Gysbers and Moore (1987) in emphasizing a holistic approach to understand career development, state that the word ‘career’ identifies and relates the many and often related roles in which individuals find themselves such as roles related to home, school, work, and community, and the events that occur over their life time such as entry into jobs, marriage, family, retirement etc.

There are three distinct definitions of career used in theory and research for vocational psychology: (i) the sequence of jobs or other work experiences in an individual’s life; (ii) a sequence in an individual’s life that fall within the same occupation or within a closely related sequence of occupations; (iii) a sequence of jobs or other work experiences in an individual’s life that fall within the same occupation or within a closely related
sequence of occupations, having the property that the sequence of jobs and work experiences tend to increase in status over time. These related definitions of career are themselves ordered in a series from less structured, with definition (i) being least and definition (iii) being most structured.

Vocation

The term vocation refers to a particular occupation, business or profession. Vocation is the way in which one earns one’s living. Vocation, in general use, carries a connotation of life long commitment.

According to Deighton (1971) the term vocation might best be reserved for the occupations chosen and engaged in for a substantial period of time, because it is appropriate to the individual’s abilities, interests, values and desires.

A vocation is an occupation, either professional or voluntary, that is carried out more for its altruistic benefit than for income, which might be regarded as a secondary aspect of the vocation, however beneficial. Vocations can be seen as providing a psychological or spiritual need for the worker, and the term can be used to describe any occupation for which a person is specifically gifted, and usually implies that the worker has a form of calling for the task. The word “vocation” comes from the Latin vocare, meaning “to call”.

Occupation

The dictionary meaning of occupation by Good (1959) is that occupation means person’s trade, vocation or principal means of earning a living, a group of jobs with a significant number of tasks and skills in common.

Whereas a job refers a set of tasks assigned by an employer to an employee, an occupation refers to the set of jobs with similar sets of assigned tasks that one may find across a variety of settings, organizations, and industries. (Herr and Cramer, 1992)

Profession

It is an evaluative term describing the most prestigious occupations which may be termed professions, if they carry out an essential social service,
are founded on systematic knowledge, require lengthy, academic and practical training, have high autonomy and a code of ethics and generate in service growth, Good (1959).

A profession is an occupation that requires extensive training and the study and mastery of specialized knowledge, and usually has a professional association, ethical code and process of certification or licensing. Examples are accounting, law, teaching, architecture, nursing, pharmacy, medicine, finance, the military, the clergy and engineering etc.

Job

Job refers to a piece of work especially a specific task done as a part of the routine of one’s occupation. It is also termed as part of employment or as a part of one’s occupation for an agreed price, Good (1959).

Shartle (1952) defines job as a group of similar positions in one plant, business, institution or other work place.

The assignment of the discrete set of work tasks to a group of individuals by an employer, from whom they receive compensation for satisfactory performance. Individuals hold jobs, and are typically assigned their initial set of work tasks by their employer. The specific work tasks associated with particular jobs frequently change. This concept of the job is similar to what Super (1977) described as a position.

Vocational aspirations

Vocational aspiration means what the individual considers to be ideal vocation for him and refers to the point in the hierarchy of prestige of various vocational fields, which an individual views as a goal. In vocational aspiration, the individual expresses as to what he wants or wishes to do, irrespective of the limitations imposed by the reality. Vocational aspirations are formulated solely in terms of the wants and wishes of the individuals. Defined in this way, aspiration is quite similar, if not identical, with a person’s fantasy choice.

Vocational aspirations “represent the incipient tasks in the process of vocational development” and are generally predictive of later vocational attainment (Hotchkiss and Borow, 1984). Vocational aspirations are defined
as “the statement of a desired career goal given ideal conditions” (Baly, 1989).

Early vocational research, such as Super’s (1953) study of vocational development asserts that vocational aspirations are crystallized during the adolescence, after a period of time in which teenagers integrate information about themselves with their knowledge of available opportunities. The approach taken by Super (1953) and others represents career exploration as a process grounded largely in personal interests and capabilities, with little attention to external circumstances or cultural pressures: general interests leads to a specific vocational goal, which in turn leads to pursuit and attainment of the that goal.

**Vocational preference**

Vocational preference means the occupation for which an individual has preference from among the alternatives available. Although the term vocational preference has been synonymously used by Gilger (1942) still some writers use ‘choice’ and ‘preference’ with different meanings. Ginzberg *et al* (1951) do not give any definition of choice in their book, but clearly imply that choice differs from preference.

Crites (1969) differentiates choice from preference by saying that choice is more comprehensive than preferences. He says all choices presume preferences but all preferences do not necessarily imply choice. He further says that regardless of age levels, choice can be defined as what the individual predicts he will be doing in future and preference can be defined as, what he would like to be doing.

Crites (1969) clarifies further that when an individual expresses a preference, he ranks two or more occupations along a continuum of his estimated chances of actually entering them. Moreover, in expressing a preference, he indicates what he would like to do and in making choice he predicts what he probably will do.

Herzog (1982) stated that occupational plans and occupational preferences have been used interchangeably to reflect future occupational plans as distinguished from actual occupational plans.
Vocational development

Vocational development is the individual’s process of proceeding along a continuum from earliest vocational fantasies, towards a final vocational choice. Like, all other aspects of development, vocational development may be conceived of as beginning early in life, and as proceeding along a curve until late in life.

According to Ginzberg et al (1951) vocational development is not a single decision but a series of decisions made over a period of years.

According to Super and Overstreet (1960) an individual reaches the ultimate decision through a series of decisions over a period of many years.

Hershenson and Roth (1966) defined vocational development as a decision-making process which creates two trends: (i) narrowing the range of possibilities, and (ii) strengthening the remaining possibilities.

Crites (1969) revealed that in one’s life everyone has to make such decisions several times as to accept or not to accept a job that has been offered to him. Each decision may be affected by his vocational development but his development will seldom make a decision for him.

It has been empirically established that vocational choice and decision-making is a developmental process which takes place over a considerable period of time and which largely terminates when an individual enters an occupation.

Vocational development is the process by which individuals choose a career path or occupation. Many theories approach it largely as a development process of youth and culminating in the choice and actualization of the first career. Individuals continue to develop vocationally throughout their lives, and many have several major careers as personal needs and interests change.

Vocational choice

Vocational choice is a process that may begin in adolescence or before, with an examination of individual interests, strengths, and limitations in light of their meaning within a given vocational context. It is an estimated
choice of the individual actually entering the occupation. Parsons (1909) writes that an individual’s vocational choice is this greatest decision and it occurs at that time of life when he is about to enter the world of work.

Vocational choice has been defined as what the individual prefers or aspires to do i.e. his first ranked occupation (Fryer 1931; Trow, 1941; Gilger 1942).

Super (1953) stated that choice had different meaning at different stage or age levels. He reasons that decisions made at younger age level are not highly related to reality as compared to the decisions reached at older age levels. A mature vocational choice involves sufficient self understanding to correctly match up personal interests and resources to the perceived requirement and conditions that obtain in a specific vocation or profession.

Roe (1956) explains that by the term vocational choice, we mean what a person would exactly do, assuming that he has the capacities, training and opportunity.

Tyler (1961) defined the process of choosing an occupation as that of establishing an identity. It is a compromise between preference for, and expectations of being able to get into various occupations.

Crites (1969) operationally defined, vocational choice as an intention of an individual to enter a particular occupation. He suggested three necessary conditions for occurrence of a vocational choice:

i) **Choice supply**

There must be two or more occupations from which to choose. The individual must have an option. If there is no option, a vocational choice is impossible.

ii) **Incentive to make a choice**

The individual must be motivated to choose an occupation. The social expectation that every man must work, is the most important incentive in this regard.
iii) Freedom of choice

The individual must be free to exercise his option in the choice of an occupation. If he is restrained from doing so, he cannot make a vocational choice.

A choice of training and occupation, and this is something on which research on vocational choice now agrees, is only made after a longer process in the course of which certain attitudes, intentions and expectations emerge. The decisive factors for vocational choice are not just information about existing options or opportunities but more particularly also:

- Individual personality patterns, such as intellectual skills, intrinsic and extrinsic characteristics;
- Social selection (social origin, socialization, gender role, ethnicity) and meritocratic selection (advice, school career, exam grades);
- And the social environment (family, peer groups, information sources, guidance);
- Is an interactive learning and decision-making phase;
- Is integrated into lifelong occupational development, subject to specific social conditions and influences and is a repeated process;
- The outcome of which contributes to people pursuing different occupational activities.

CAREER DECISION-MAKING

Choosing one's career depends on what one wants to do. It is not an easy task due to the complex and fluid character of the world of work. It involves not one decision, but a large number of decisions over a considerable period of time. Hence, a person's life may be seen as a string of career decisions, reflecting individual's groping for an ideal fit between self and work (Bordin, 1984).

The dictionary meaning of the term *Decision* is the act of making conclusions or making up one's mind. The term Career decision-making refers to decision of a career from among several choices available to the individual concerned.
THEORETICAL BACKGROUND OF CAREER DECISION-MAKING

Career decision-making is based on cognitive information processing theory (CIP). This theory is an emergent career theory, designed to examine how individuals engage in career problem solving and decision-making. In particular, CIP theory describes career decision-making like a recipe, which involves several ingredients as well as a process for integrating these ingredients to come out with an end product. Two diagrams that help to illustrate this process are the pyramid of information processing domains in career decision-making [Figure 1.2] and CASVE cycle [Figure 1.3].

![Pyramid of Information Processing Domains in Career decision-making](image)

**Figure 1.1**

*Pyramid of Information Processing Domains in Career decision-making*


The information processing domains related to career decision-making and job placement can be conceptualized as a pyramid (see Figure 1.2)
Knowledge domain

Self Knowledge

- What are my values, interests, skills, and employment preferences?
- What am I looking for in an occupation or program of study?
- What am I looking for in a job?

Occupational Knowledge (Also includes knowledge of programs of study and jobs)

- What kind of job can I get with my education and experience?
- What is a typical day for a person employed as a _________?
- What are the educational and training requirements for ______? 
- How can employers be categorized?

Decision-making skills domain

Generic Information Processing Skills (e.g., CASVE Cycle)

- What are the steps in choosing an occupation, program of study, or job that will meet my needs?
- How do I usually make important decisions?

Executive processing domain

- Metacognitions
- Self-talk "I'll never be able to make a good career choice."
- Self-awareness "I'm getting very scared about this."
- Monitoring and control "I need help in making this choice."
The five stages of the CASVE cycle

Problem solving and decision-making can be conceptualized in terms of the CASVE cycle. The final stages of this cycle (Figure 1.3) include Communication, Analysis, Synthesis, Valuing and Execution.

![Figure 1.2]

The Five Stages of the CASVE (Communication, analysis, synthesis, valuing, execution) cycle of information processing skills use in Career decision-making

Adapted from: Career development and services: A cognitive approach by G.W. Peterson, J.P. Sampson and R.C. Reardson

Communication

In this first stage of the cycle, the individual communicates both within themselves through self assessment and reflective thinking, and with others in their life. The purpose of this communication is to identify the gap between where they are now and where they would like to be in the future through analyzing internal and external cues.

Internal cues

- Emotions – “I’m scared about committing myself.”
- Avoidance behavior – “I’ll get started next week.”
- Physiological – “I’m so upset about this, I can’t eat”
**External cues**

- Event – “I’m getting ready to graduate and I don’t know what I will do after that.”
- Significant other – “My parents really want me to make a decision about where I will go to college and what I will major in.”

**Analysis**

The focus of this stage is for the individual to learn more about themselves, their decision-making, and the world-of-work. This is done through analyzing personal experience and information obtained from assessments.

**Enhance self-knowledge**

- Values
- Interests
- Skills
- Employment preferences

**Enhance occupational knowledge**

- Knowledge of individual occupations, programs of study, or jobs
- Knowledge of the structure of the world-of-work (occupations, programs of study, or jobs)

**Generic information processing skills**

- Personal decision-making style

**Metacognition**

- Self-talk – “I need to make a decision.”
- Self-awareness – “I’m uneasy about this whole process.”
- Control and monitoring – “What information do I need to know about myself and my situation so that I am prepared to make a decision?”

**Synthesis**

This stage assists the individual in expanding the list of possible career options and then refining this list to 3-5 alternatives. This is done by synthesizing all of the information derived in the prior 2 stages, and then using this information while considering the list of options.
Elaboration
- Identify the maximum number of potential

Crystallization
- Narrow potential occupations, programs of study, or jobs to a manageable number of options (3-5)

Valuing
This fourth stage of the cycle is evaluating the costs and benefits of each alternative to:
- Oneself
- Significant others (e.g. family)
- Cultural group
- Community and/or society at large
  Through this, the individual will prioritize their alternatives to make tentative primary and secondary choices.

Execution
The purpose of this stage is to formulate a plan for implementing a tentative primary and secondary choices.
- Preparation program (formal education/training experience)
- Reality testing (full-time, part-time, and/or volunteer work experience, as well as taking courses or training)
- Employment seeking (steps to apply for and get a job)

Communication
By reviewing external demands and internal states during this stage, the individual will learn if their tentative choice is the right one for them.
- Has the gap been closed?
- Have the negative emotions and physiological states been replaced by feelings of serenity?
- Am I taking action to achieve my goal?
From Theory to Practice in Career Decision-Making

The different steps within Career decision-making are based on the CAVSE Cycle decision-making process. Each step in the decision-making cycle is presented as an individual module of instruction. Furthermore, the CDM breaks out the phases of Communication into two separate steps, the first to engage the learner in the decision-making process, the second (which is the last stage of the decision-making process) to encourage learners to reflect on the process and the decisions they made.

As such, the steps followed in Career decision-making include:

- **Communication**: Knowing I Need to Make a Choice
- **Analysis**: Understanding Myself and My Options
- **Synthesis**: Expanding and Narrowing My List of Options
- **Valuing**: Choosing an Occupation, Program of Study, or Job
- **Execution**: Implementing My Choice
- **Communication**: Knowing I Made a Good Choice

![Figure 1.3 CASVE cycle, as applied to Career decision-making](image)

To simplify the CASVE Cycle, making it more user friendly for young learners, and to better facilitate instruction about the Career decision-making process, the CASVE Cycle is known in the CDM as the “Decision Cycle”. As many of the CASVE Cycle was identified as difficult for younger learners to understand, the stages of the CASVE Cycle have been translated into the Decision Cycle (Table 1.1).

Table 1.1
Translation of terms from CASVE cycle to Career decision-making

<table>
<thead>
<tr>
<th>CASVE Cycle</th>
<th>Decision Cycle</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Engaging</td>
<td>Knowing I Need to Make a Choice</td>
</tr>
<tr>
<td>Analysis</td>
<td>Understanding</td>
<td>Understanding Myself and My Options</td>
</tr>
<tr>
<td>Synthesis</td>
<td>Identifying</td>
<td>Expanding and Narrowing My List of Options</td>
</tr>
<tr>
<td>Valuing</td>
<td>Deciding</td>
<td>Choosing an Occupation, Program of Study, or Job</td>
</tr>
<tr>
<td>Execution</td>
<td>Acting</td>
<td>Implementing My Choice</td>
</tr>
<tr>
<td>Communication</td>
<td>Reflecting</td>
<td>Knowing I Made a Good Choice</td>
</tr>
</tbody>
</table>

The Gestalt Career decision making cycle (CDMC) depicts a cyclical process of contact and need fulfillment, or resistance to contact and need inhibition. In successful, or contactful, resolution of this process, individuals effectively use internal and external resources to satisfy personal needs and cope with environmental demands, reach a satisfying career-decided state, and thereby maintain psychological homeostasis of equilibrium. When individuals lack awareness of personal and environmental resources or cannot use or access those resources effectively, they fail to satisfy their...
needs, prove ineffective in coping with the demands of the environment, remain undecided, and experience dishomeostasis.

CHOICE GOALS FRAMEWORK DEVELOPED BY BETTMAN, LUCE AND PAYNE (1998)

When making a decision, maker pursues certain choice goals (Fig.1.5). There are distinguished four choice goals: maximizing the decision accuracy, minimizing the cognitive effort required to make the decision, minimizing the negative emotions experienced during the decision process, and maximizing the justifiability of the decision to significant others. These four goals motivate certain cognitive processes that ultimately lead to the choice outcome.

The second major process in the model is preference construction. Preferences are used in the decision process to evaluate the attributes of options and to assess their relative importance. However, the preferences people express in their choices are not always stable and well-defined. Research has shown that they are often influenced by situational variables, in particular the evaluation mode (joint vs. separate evaluation of the options) and its interactions with characteristics of the attributes (context factors). The evaluation mode, in turn, is partially determined by the representation of information and by the decision strategy. In addition to these situational determinants of preferences, preferences are often shaped by the social context.

The choice outcome is ultimately a function of the informational inputs the decision maker has, the preferences that are partly constructed in the decision process, and the decision strategy, i.e., the way in which information and preferences are combined to select an alternative.

A pictorial presentation of model overview of choice goals framework is presented vide figure 1.5.
SOCIAL LEARNING THEORY OF CAREER DECISION-MAKING

A novel approach to vocational development theory is the adaptation and extension of Bandura’s social learning theory to Career decision-making process by Krumboltz (1990). The theory’s primary focus is on identification and elaboration of personal and environmental events that shape an individual’s decisions about career made at selected points in life. Why do
people enter particular occupations or change their educational or career paths at certain points of time in their lives? Why do people prefer some occupational activities at selected point in life? These are some of the questions addressed by the social learning theory.

The theory stresses the importance of biological inheritance as well as that of environment in all its complexity in the Career decision-making process. People bring a set of genetically and social inherited characteristics to their particular environment. The personal attributes and environment interact to produce self-views which influence the individual’s work-related behaviours. These behaviours are shaped and modified by natural or programmed reinforcement contingencies.

Four important factors have been identified in influencing an individual’s career decision path:

i) **Genetic endowment and special abilities**: Such inherited attributes as race, gender, physical appearance, and special abilities involving motor, intellective, and perceptual behaviours etc. influence what career the individual will choose.

ii) **Environmental condition and events**: Conditions such as number and nature of job opportunities/training, labour laws, union rules, social policies such as retirement etc. exert their influence in a planned or unplanned manner.

iii) **Past learning experiences**: An individual’s learning experiences influence the development of career preferences and skills and the selection of a particular skill. It is posited that each individual has a unique history of learning experiences that results in the chosen career path.

iv) **Task approach skills**: As a result of unspecified interactions among the above three factors, an individual develops and learns to apply to a wide range of skills, attitudes involving work standards, work values, work habits, perceptual and cognitive processes, mental sets and emotional responses. The task approach skills are modified by experience and feedback regarding their outcomes.
Krumboltz has generalized a set of propositions about the relative influence of various learning experiences. He does not seem to assume that certain types of learning are more potential than others. Further, learning experiences are divided into two types.

i) Instrumental learning experiences;

ii) Associative learning experiences.

<table>
<thead>
<tr>
<th>Antecedents</th>
<th>Behaviours</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genetic Endowment</td>
<td>Directly observable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>results of action</td>
<td></td>
</tr>
<tr>
<td>Special abilities and skills</td>
<td>Covert and Overt actions</td>
<td>Covert reactions to consequences (Cognitive and emotional responses)</td>
</tr>
<tr>
<td>Planned and Unplanned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>environmental conditions or events</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task or problem</td>
<td>Impact on significant others</td>
<td></td>
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</tbody>
</table>

**Figure 1.6 Instrumental learning experience, general model**

Figure 1.7 presents the general model for associative learning experiences in the form of a circle.

Out of the complex interaction of the four types of influencing factors mentioned above three consequences are postulated and considered to be very important.

**Self-observation generalisations**

Based on his life experiences, an individual forms a self-view.

Self-generalizations may be divided into three major categories: (i) task efficacy, (ii) interests, and (iii) personal values.

**World-view generalizations**

The individuals also form a world-view out of their observations about the environment in which they live. These generalizations are used to make predictions about occupations which help decision-making.

**Task approach skills**

The task approach skills are characteristic cognitive and affective predispositions that the individual displays in dealing with, interpreting, and predicting the environment.
The social learning theory has made an important contribution in its specificity in identifying factors affecting Career decision-making and its operationalizability. It has introduced a number of well defined constructs. Krumboltz has also integrated economic and social constructs into theoretical constructs and so his theory is somewhat unique in this regard.

The social learning theory has developed well defined objectives and theoretical constructs but it has failed to develop suitable empirical tests of the theory.

UNDERSTANDING THE PROCESS OF CAREER DECISION-MAKING

Different authors have different viewpoints with regards to the process of Career decision-making. Some of these are as under:

- Seven stages of decision-making cycle (Carney and Wells, 1995)
- Seven step Career decision-making model (Career services, Rutgers University, New Brunswick, 2000)
- Six steps of Career decision-making (Bureau of Labour Statistics Occupational Outlook Handbook, 2005)

Seven stages of decision-making cycle (Carney and Wells, 1995)

Clarke and Wells (1995) gave a seven stage Career decision-making cycle. These seven steps include:

- Awareness
- Revaluation
- Self Assessment
- Implementation
- Exploration
- Integration
- Commitment

*Figure 1.8 Seven stages of decision-making cycle (Carney and Wells, 1995)*
Awareness: A sense of increasing discomfort and feeling that a change / decision is becoming eminent. This feeling can be triggered by both internal and external pressures. Internal pressures are driven by own needs or desires. An external pressure represents forces outside of us.

Self-assessment: The means of identifying the most important criteria we must attend to in making career related decisions. The criteria includes our interests, skills / abilities, values etc. Any vocational options that we consider in our decision-making must be weighted against how they fit our personal needs and desires.

Exploration: The process of making an informed decision necessarily includes gathering accurate comprehensive and relevant information. This information relates both to the world of work information i.e. (Job duties / tasks, training requirements for entry into the field, salary, working environments, etc.) and understanding of self.

Integration: The assessment of “fit” between occupational criteria (i.e. tasks, environments, rewards / costs, etc.) and personal criteria (i.e. interests, abilities, values etc.) helps to increase the chances of working in occupations that will meet our needs and desires.

Commitment: At some point we need to decide, we need to act. The time for commitment comes when we have gathered sufficient information to make an informed choice. We may not have arrived at complete assurance. But we must move ahead.

Implementation: A commitment or decision will not succeed without a plan for how to proceed. This plan includes what we will do, when we will do it, and how we will secure the necessary resources to carry out our decision. A good plan should minimize surprises and anticipate difficulties and give us greater confidence when difficulties are encountered.

Revaluation: Revaluating our decisions allows us to make adjustments and to see if our desired outcomes are being achieved.
Seven step Career decision-making model (Career services, Rutgers University, New Brunswick, 2000)

The following 7-step Career decision-making model provides an insight into the process of Career decision-making (Career services, Rutgers University, New Brunswick 2000).

Career decision-making model

**Step One: Identify the decision to be made**

Before one begins gathering information, it is important that he/she has a clear understanding of what it is that are trying to decide. Some decisions one might be facing could include:

- What will I choose for a college major?
- What do I want to do after graduation?

**Step 2: Know yourself (self assessment)**

Before beginning to explore college majors and careers which will prove satisfying, one must first develop a true understanding of oneself, one's skills, interests, values, and personality characteristics. Questions one may want to ask oneself are:

**Skills**

- What are my strengths and weaknesses?
- What skills do I need to acquire?

**Interests**

- What am I interested in doing?
- What activities have I enjoyed the most?

**Values**

- What is important to me in a career?
- In what ways must I be challenged and rewarded?

**Personality**

- What personal qualities do I possess that will help me in the classroom?
- How will my personal style influence my career choice?
In the self-assessment section, the individual learns about his interests, skills and values.

**Step 3: Begin identifying options (career exploration)**

To continue gathering information and researching careers, one needs to start identifying options. Questions that one might ask oneself are:

- At this point in time, what college majors and career paths am I considering?
- What other types of options am I considering?

**Step 4: Gather information and data**

In this step one does have a list of majors and careers that one plans to explore and research in more depth. Hence:

- Examine the information and resources you already have.
- Seek out and utilize new information.

**Step 5: Evaluate options**

Once have completed the career research, the individual is now ready to evaluate each of the options identified. Hence:

- Identify the pros and cons of each college major or career.
- Explore how each major or career relates to your interests, skills and values.
- Project the probable future consequences of each major or career choice.

**Step 6: Select one of the options**

Based on the information gathered and analyzed, one should now be able to choose one of the options.

- Do I have enough information to choose one option over another? If not, I might need to do more research.

**Step 7: Make a plan and implement the decision**

Having chosen one of the options, one can begin developing and implementing a plan of action. Ask oneself:

- What information or resource do I need to follow through on your decision?
Six steps of Career decision-making (Bureau of Labour Statistics Occupational Outlook Handbook, 2005)

Making a decision about selecting a career direction can be a challenging and sometimes confusing process. Accurate self knowledge informed and nurtured by thorough exploration leads to informed career decisions. According to the Bureau of Labor Statistics Occupational Outlook Handbook, (2005), there are six steps in Career decision-making process:

Explore capabilities and interests

- Identify and prioritize aptitudes, abilities and transferable skills.
- Identify and prioritize educational, career and personal interests.
- Identify and prioritize personal values and work values.
- Understand the relationship between interests, values and abilities.

Understand the world of work and education

- Become aware of potential array of careers.
- Become aware of major fields of study.
- Identify information useful in selecting possible careers and educational programs.
- Relate educational course work to hobbies and careers.
- Learn consequences of various career choices and educational preparation.

Understand and develop decision-making skills

- Understand the need to make decisions in developing career objectives.
- Identify steps involved in decision-making.
- Practice making decisions related to future career choices.
- Identify where to obtain information for making career decisions.
Learn how stereotyping, bias and discrimination limit choices
opportunities and achievement

- Understand stereotyping as it relates to work and education.
- Identify limitations placed on people by stereotyping.
- Identify changing work patterns for males and females.
- Identify opportunities regardless of past stereotyping or discrimination.

Develop a career plan

- Finalize current priorities of needs, interests, skills and values.
- Generates options for careers or major field of study based on needs, interests, skills and values.
- Acquire information about career educational options.
- Apply decision-making skills and weigh alternatives in order to make a tentative decision.
- Identify training, educational and experience requirements.
- Develop short and long term career goals.
- Develop a plan for periodically re-evaluation of career decision.

Develop employability skills

- Develop positive work attitudes and behaviors.
- Prepare resume.
- Conduct informational interviews.
- Develop interviewing techniques.
- Understand benefits, rights and labor laws.
- Conduct a job search.
- Complete job application.
- Understand the transition from school to work.
CATEGORIES OF CAREER DECISION-MAKING

Here, it would be pertinent to mention some levels or categories of decision-making. These are:-

- Decided
- Tentative
- Undecided

Decided: The dictionary meaning of decided is definite i.e. having not doubt about a choice. Whereas decisiveness means the extent to which an individual is definite about making a career choice.

Types of decidedness

Wanberg and Muchinsky (1992) clustered 390 college students into four groups on the basis of decidedness and student's concerns: Confident decided, anxious undecided, concerned decided and indifferent undecided.

Greenhaus and Callahan (1992) cluster analyzed a large sample of employees and identified groups they labelled vigilant and hyper vigilant decided adults and chronic and developmental undecided adults.

Krumboltz (1992) challenged the assumption that being undecided is bad suggesting that being open minded may be better that decided.

Tentative: The dictionary meaning of tentative, stresses as one not having sure knowledge, subject to change or hesitant as the characteristics of being tentative or uncertain.

The condition of being in doubt or lack of certainty is defined as uncertainty.

Undecided: An individual who is undecided means he is not yet determined or settled or not having reached a decision.

Indecision represents an individual's inability to make a particular decision at a required time. Whereas, indecisiveness represents a characteristic which the individual display frequently in the course of making required decisions.
Types of undecidedness


- Students who experienced confusion and lack of experience in career decision-making.
- Students who need support in decision-making,
- Students who found several career alternatives attractive,
- Students who experienced external barriers and lacked interest in decision-making.

Larson et al (1988) employed cluster analysis to identify subtypes among 87 undecided college students. They labeled these four groups as:

- Plan less avoiders
- Informed indecisive
- Confident but uninformed and
- Uninformed

Fuqua et al (1998) found evidence for three types of undecided students: a) those who are career decided, relatively free of anxiety b) those with moderate career indecision, some anxiety, internal Locus of control; c) those with serious career indecision moderate anxiety, external Locus of control.

Holland and Holland (1977) explained that the career undecided students might be conceptualized as a heterogeneous group consisting of multiple subtypes of undecided students:

- those students who felt no particular pressure to make a decision at that time;
- those who are slightly or moderately immature interpersonally incompetent anxious and alienated;
- those who are moderately to severely immature, interpersonally, incompetent, anxious and alienated.
Reasons of career undecidedness

The CDP (career decision profile, Jones 1989) can be used to differentiate individuals according to four reasons they may have for being undecided:

- **Lack of self clarity** (indecision due to individual's inability to understand his or her strengths, weaknesses, interests and personality);
- **Lack of knowledge about occupation** (indecision due to lack of information concerning occupations and educational programmers);
- **Indecisiveness** (undecidedness due to a general inability to make decisions);
- **Career choice importance** (the extent to which respondents feel that choosing and working in an occupation is an important or unimportant part of their life goals).

Callahan and Greenhaus (1990) developed a model and scale of career indecision and that tested them with a sample of 397 managers and professionals. Analysis indicated that four major factors were sources of career indecision among this adult sample: a) lack of self information b) lack of information, c) decision-making fear and anxiety, and d) situational constraints.

Larson *et al* (1988) while investigating multiple subtypes of career indecision found that when compared with the decided students, the undecided student acknowledged:

- More career problem solving deficits,
- More career myths,
- More pressure to make career decision.
- Less confidence in their ability to perform academically
- Lower knowledge of the world of work and
- More career obstacles.

A basic distinction has been made between students regarded as situationally undecided because of informational defects and students who
are undecided because of character deficits (Salomone 1982). The former group is referred to as undecided, whereas the latter group is considered indecisive.

Literature on career indecision distinguishes between individuals who are undecided and those who are by nature generally indecisive (Fuqua and Hartman 1983; Vondracek et al 1990).

Individuals who are undecided are hypothesized to be going through a development stage that is both normal and temporary. These persons do not experience a great deal of pressure to make career related decisions and delay the process while they acquire additional information about themselves, occupations and the world of work or the decision-making process (Salomone 1982). Holland and Holland (1977) observed that the undecided individuals in their study reported that I don’t have to make a decision right now.

Whereas individuals in the career indecisive group do not appear to be going through a normal stage of development, and they have not delayed their vocational choice to gather more information. Instead it is proposed that these individuals possess certain traits that do not allow them to readily make decisions of any kind including their future career decision. Salomone (1982) noted that such individuals were characterized by high levels of ambivalence, anxiety and frustration; an unclear sense of personal identity; low self confidence and Self esteem; externalized Locus of control.

Fuqua and Hartman (1983) termed this condition as chronic indecision.

A number of authors e.g. Holland and Holland (1977); Salomone (1982); Van Matre and Cooper (1984) have suggested that practitioners look at indecisiveness as a trait while treating undecidedness as a state.

In this formulation the, the certainty of those who are simply indecisive about their occupational choice is due to limited information about themselves and/or the world of work, while indecisive persons bring dysfunctional beliefs or behaviours to career planning. These attitudes make indecisive individuals unable to use rational decision-making strategies. Indecisiveness as a trait has been identified with such personal characteristics as anxiety, self doubt,
perceiving barriers to preferred choices and a lack of clear sense of personal identity (Holland and Holland, 1977; Salomone, 1982).

Although the differentiation between career undecidedness and career indecision is recognized as potentially useful, Slaney (1988) commented that very little progress has been made this far in demonstrating that the two constructs are valid and discriminable. Overall, there is no clear evidence that this is the best way to classify individuals who have not specified a career choice.

**APPROACHES TO MEASURE CAREER DECISION-MAKING**

Within the realm of Career decision-making, three influential approaches have been evolved. The first is a developmental approach in which Career decision-making is described in terms of a series of developmental stages. Scales based on this approach measure progress with decisional lacks and include assessment Career decision-making (Harren, 1979) Career Maturity Inventory (Crites, 1978) and Career Development Inventory (Super et al. 1979).

The second approach includes research on decision-making models that are based on classical theories (e.g. Gelatt, 1962; Janis and Mann, 1977; Krumboltz and Baker, 1973). Instruments used in this research include process scale that assess ability to apply decision-making skills behavioural scales that assess whether the skills are used, and outcome scales that assess changes in the quality of choices (Mitchell and Krumboltz, 1984). The Career Decision Simulation (Krumboltz et al 1979) and the Career decision-making skills assessment exercise are examples of measures developed from this approach.

The third approach has focused on identifying and differentiating individual differences in Career decision-making. Ongoing efforts to differentiate career indecision from career indecisiveness (e.g. Holland and Holland, 1977; Salomone, 1982) and to identify different Career decision-making styles (e.g. Harren, 1979; Jepsen, 1974) have characterized this approach.
VARIABLES INFLUENCING CAREER DECISION-MAKING PROCESS

Young people's career decisions are influenced by a range of factors and issues, including parents and other relatives, friends and peer groups, career specialists, subject teachers, contact with employers and direct experiences of employment and individual interests and values.

Patton and McMahon (2001) developed a Career decision-making diagram to represent the interaction between variables that influence Career decision-making processes. These are presented vide figure 1.8:

![Career decision-making diagram](image)

Figure 1.9 Variables influencing Career decision-making processes (Patton and McMahon, 2001)

Based on research evidence Swanson and Tokar, 1991; Luzzo, 1993, 1995; McWhirter, 1997; Petrone, 2000; Patton and Creed, 2001 and Patton and Mc Mohan, 2001, the investigator had made an attempt to further
categorise the various variables influencing the Career decision-making process as Personal and Environmental variables vide table 1.2.

**Table 1.2**

**Variables influencing Career decision-making process**

<table>
<thead>
<tr>
<th>Personal variables</th>
<th>Environmental variables</th>
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<tbody>
<tr>
<td>Ability</td>
<td>Globalization</td>
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<td>Aptitudes</td>
<td>Flat World Platform</td>
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<td>Decision Making Skills</td>
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<tr>
<td>Race/Ethnicity</td>
<td>Social Space</td>
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<td>Social Space</td>
<td>Images of Occupations</td>
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<tr>
<td>Beliefs</td>
<td>Workplace Gossip</td>
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<tr>
<td>Knowledge</td>
<td>Work Environment</td>
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<tr>
<td>Personality</td>
<td>Occupational Status</td>
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<tr>
<td>Career Affirmation</td>
<td>Social Type</td>
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<td>Gender</td>
<td>Physical attributes</td>
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<tr>
<td>Self-concept Status</td>
<td>Family</td>
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<tr>
<td>Socio Economic Status</td>
<td>Educational Institutions</td>
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<td>Interests</td>
<td>Physical Constraints</td>
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<td>Values</td>
<td>Siblings</td>
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<td>Task Approach Skills</td>
<td>Media and Information sources</td>
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<td>Mental Retardation</td>
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<td>Life Style</td>
<td>Self esteem</td>
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<td>Fitness</td>
<td>Anxiety</td>
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<tr>
<td>Academic achievement</td>
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Given below is a brief overview of various variables influencing Career decision-making.

Personal variables influencing Career decision-making process

Abilities and aptitudes

Commonly accepted as one of the most influential components of career choice, the study of abilities (or aptitudes, as they are synonymously known) has a long history in vocational psychology. The concept of abilities can be defined as “[describing] what the person can do now, or will be potentially able to do in the future” (Betz, Fitzgerald, and Hill, 1989); similarly, Bennett, Seashore, and Wesman (1982) define aptitude as “a condition or set of characteristics regarded as symptomatic of an individual’s ability to acquire with training some (usually specified) knowledge, skill, or set of responses, such as the ability to speak a language (or) to produce music.” Walsh and Betz (1985) put it best when they state, “Essentially, an aptitude is the capacity to learn”.

Abilities and aptitudes are strong predictors of both educational and job performance; theoretical formulations and practical applications need to take such variables into account if they are to provide a complete explanation of individual vocational choice and development.

Personality

The question of whether personality plays a role in occupational choice has fascinated vocational psychologists for years. This state of affairs can be linked to two factors: a failure to articulate exactly what is meant by personality and the lack of a conceptual framework that specifies exactly how personality variables should relate to career choice. For example, although it is logically and conceptually meaningful to suggest that abilities should relate to level of choice and job performance, and that interests should relate to occupational tenure and satisfaction, it is unclear exactly what relationships to expect between personality and choice.
Costa, et al. (1984) concluded “personality dispositions show strong consistent associations with vocational interests”. Borgen (1986) notes that the Costa et al. study is the best research to date on the interest-personality linkage, demonstrating as it does in what ways the two are and are not related. They found theoretically consistent relationships between Holland types and measures of personality traits such as extraversion (social, enterprising) and openness (investigative, artistic), as well as a lack of relationship between type and neuroticism. This research has recently been replicated and extended (Gottfredson, Jones, and Holland, 1993) and other investigators have provided additional support (e.g., Goh and Leong, 1993; Jin, 1991; Montag and Schwimmer, 1990).

Socio economic status (SES)

Social class, or socioeconomic status (SES), has been acknowledged as a powerful determinant of vocational behavior since the inception of the discipline. The relationship between occupation and social class is in fact so strong that the former is generally considered to be the single best indicator of the latter. Classic studies of occupational choice in the mid 1950s (e.g., Sewell, et al. 1957) indicated that social class contributed to the vocational and educational aspirations of high school boys over and above its relationship with ability, which was substantial.

Glasgow (1980) describes the underclass as “already earmarked for failure – they are undereducated, jobless, without social skills or the social credentials to gain access to mainstream life”. Clearly, the influence of social class on the behavior of this segment of society is so powerful that it over determines the effects of most individual level variables.

Race/Ethnicity

Smith (1983) distinguishes among race, ethnicity, and minority group membership. She defines race as a subgroup of individuals who share a particular combination of physical characteristics and genetic origin. Ethnicity refers to a group’s shared sense of history and values and is more cultural than physiological. The term minority group is related to these concepts, but separate from them; it refers to “a group of people who, because of physical
or cultural characteristics are singled out from the others in the society in which they live for differential and unequal treatment, and who therefore regard themselves as objects of collective discrimination”.

In the last two decades, considerable research has examined the ways in which these variables influence the process and outcome of career development. Sometimes known as the “special groups” literature (e.g., Gottfredson, 1986), this body of research consists mainly of studies comparing the vocational outcomes of racial groups (generally blacks and whites) and consistently demonstrates marked differences between the two in educational attainment and occupational distribution.

**Gender**

In the last two decades, there has been a virtual explosion of research examining the effect of gender on career development; indeed, it is no exaggeration to suggest that women’s career development is currently the most active area of study in vocational psychology. Traditional theories of choice and adjustment have been criticized as androcentric and ignoring the realities of women’s lives; more recently, new theories have been proposed that are either based explicitly on women’s experiences (Betz and Fitzgerald, 1987; Fassinger, 1985, 1990; Fitzgerald, Fassinger and Betz, 1995) or that are designed to be applicable to both sexes (Astin, 1984; Farmer, 1985; Gottfredson, 1981). In addition, traditional theories have been reformulated in ways that incorporate gender-relevant variables (e.g., Super, 1980).

Gender is clearly one of the most powerful of all influences on vocational behavior. Although certainly a strong, and negative, predictor of occupational level, its influence is most easily observed with respect to field. It has become almost a cliché to refer to “pink collar” or female-dominated occupations such as nurse and secretary, and much research is devoted also to examining the under-representation of women in scientific, technological, and managerial occupations. Although vigorous debates are waged over the meaning, causes, and implications of gender-related differences, their power is unquestioned and gender has become perhaps the clearest and most well-
accepted example of the importance of cultural context for influencing career development.

**Interests**

Interests are a species of desire; specifically, they are that which people desire to understand or do. Vocational interests are one of the central psychological constructs thought to effect Career decision-making and adjustment, and refer specifically to those activities, objects or processes associated with work activities. Savickas (1999) reviews other definitions of interests, including those from vocational psychologists. One of the most prominent of the researchers of vocational interests, Strong (1955), proposed that interests, are composed of four attributes: sustained attention to an object (attention); liking of an object (feeling); a sense of being steered toward an object for which one feels positive interest and away from one for which one feels negative (direction); and activity spurred by an object (activity). Super and Crites (1962) described four kinds of interests based on how their existence might be inferred: expressed, manifest, tested and inventoried. The most common way to assess interests is through interest inventories of which there are a great number.

**Knowledge**

Knowledge also referred to as crystallized ability, is one of the broad ability areas identified in factorial studies of intelligence. It is also probably the single most important of the board ability factors for overall adult vocational success.

Skills and knowledge are not necessarily the same thing. Skills are behaviours whose successful performance depend on a number of psychological attributes. Such attributes may and usually do include some type of knowledge, and may depend nearly exclusively on types of knowledge. However, skills may also depend in part on non-knowledge factors of ability. For example, skill in singing opera depends in large part on knowledge of the technical aspects of singing, or music theory, of the opera libretto, and so on, but it also (presumably) depends on the broad ability auditory processing.
Knowledge is composed of a variety of narrow factors, the sheer number of which is open to debate. The relevant domains are probably best understood among young school-age children, where the process underlying knowledge acquisition for core academic tasks such as reading and math are increasingly well documented. The study of knowledge acquisition among adolescents and adults, and the relevance of such knowledge for career development, is less comprehensively known.

Much has been made of the degree to which knowledge and skills relevant to one occupation can transfer to be useful in performance of work in another occupation. Such transfer is important in smooth adjustment of a worker to the demands of a new job or occupation, particularly if a rapid master of the demands of the new work is important.

Decision-making skills

A central construct in the cognitive information processing theory of Peterson, et al. (1996), decision-making skills transform knowledge of self and occupation into problem recognition and implementation of a solution. The five skills the identified are communication (identifying a gap), analysis (identifying promising alternatives), valuing (prioritizing alternatives), execution (forming means-end strategies). They further assume these skills form a cycle, the CASVE cycle.

Career affirmation

Statements that reinforce or affirm an individual’s faith, confidence, and belief that he or she can achieve particular vocational goals. Such statements generally take the form of a few sentences that the individual can review on a daily basis. It is assumed that reflecting on the application of such statements to one’s own self-efficacy beliefs, shore up one’s vocational identity, increase one’s flexibility to take advantage of promising chance events, increase one’s courage in tackling the work or self-development tasks that need to be done, and in general improve one’s ability to employ one’s will to achieve one’s vocational goal, and misapply one’s time, effort, and other resources. Counselors making use of career affirmations with clients should therefore,
endeavour to help the client maintain a healthy, realistic perspective even as they attempt to increase their level of optimism, courage and strength of will.

**Physical constraints**

Many talent fields have formal or informal physical constraints on who is able to achieve elite levels of performance. Military forces normally require recruits to pass at least minimum levels of fitness, height, eyesight, and so on, and for some characteristics recruits must fall within a range (e.g., height, weight), and this range may depend on the recruit's sex.

Elite athletes likewise encounter a winnowing based on physical characteristics, although in most cases such constraints are informal and based on competitive pressures rather than being formally mandated by rules. For example, there is no height requirement among basketball players in the National Basketball League, but most players are over six feet tall, and most are substantially taller than that. Some athlete, such as jockeys and female gymnasts, are substantially shorter weight less than the average for their sex. Some occupations require high visual acuity (e.g. air force fighter pilot, sniper), while other generally (but not always) demand good looks (e.g., model).

The constraints are primarily physical, although characteristics such as being attractive are also related to willful intent. The point is that one either has such physical qualities, or falls within the acceptance physical range required of the activity, or one does not. Neither will nor practice will change such factors, at least in most cases.

**Values**

Brown (1996) defines values as believes with cognitive affective and behavioural aspects. Values in Brown’s theory serve a variety of purposes, including standards against which to judge actions, serve as the basis for setting goals (and therefore aid decision-making), and support rationalizing behaviour. Although values are a function of individuals. Brown assumes that value affect career development through the operation of a values system, comprised of a relatively small set of values. Brown assumes that satisfaction
arises from finding a set of life roles that satisfy the core values of this values system. Some other theorists (Dawis, 1996; Super, Savickas, and Super, 1996) also emphasize the role of values, but their treatment differs from Brown’s in many respects.

In a more general sense, one may also point to evaluative considerations that affect the overall social policy of a society’s economy, and that therefore must trickle-down to affect the lives of ordinary workers. Examples of such global values might include assumptions regarding how workers should comport systems, e.g., feudal, free-market, socialist, communist.

**Task-approach skills**

An important construct in Mitchell and Krumboltz’s (1996) learning theory of career choice and counseling, task approach skills refer to abilities used in Career decision-making. Mitchell and Krumboltz assume that such abilities are learned and include both cognitive and performance abilities. Examples of task approach skills include processes of thought and perception, typical combinations of thoughts and emotional responses, and habits of work. People use task approach skills for a variety of purposes in the pursuit of making wise career choices; such purposes include coping strategies to manage the demands others place on the individual while making decisions, how the individual interprets such demands in relation to both self-observation and world-view generalizations, and in building a mental model to account for and predict the sequence of events unfolding in the Career decision-making process.

**Mental retardation**

A condition characterized by important deficits in intellectual abilities and adaptive behaviour, with onset occurring during the developmental period (through age 21). Mental retardation (MR) is related to difficulties in adjustment to school and work and documentation that impairment in ability to engage in substantial gainful activity is required as part of the determination of eligibility for social security benefits.
Locus-of-control

Rotter (1966) described a Locus-of-control scale that indicated beliefs related to internal versus external sources of control over events. This led to a number of studies on individual differences in career development and occupational choice on the locus-of-control (LOC) dimensions; particular emphasis has been placed on the relations between LOC and Career decision-making styles. For example, Broley (1986), cited that planning course had greater increases in internality of LOC related to Career decision-making compared to those who did not take the course.

Lifestyle

A central construct in Adlerian theory (individual psychology). Lifestyle is the individual’s style of perceiving, thinking, desiring, and acting that together create a unique personality configuration. The lifestyle is essentially the core schema of a person, in much the same way that a kernel program can serve as the core of a larger software system; it affects and is reflected by everything the individual does, thinks, and perceives.

Alder and his followers often describe the lifestyles in a single word (e.g., controlling, driving), but it does not have to be reduced to a single word. For example, one may characterize a lifestyle in a following sentence, by filling in the blanks: “I am ________, and the world is ________, therefore I must _____ in order to ____.” The final blank is usually related to what the individual feels he must do or achieve. Because the lifestyle affects everything a person does, it affects his or her vocational choices behaviour, and experience.

Genes

Researcher in behaviour genetics have reported findings suggesting a strong genetic impact on personality, interest, ability and other variables likely to affect vocational choice and adjustment. The percentage of influence that is strictly genetic appears to increase with age, reaching approximately 80 percent of variance in important variables (e.g., personality traits and measure of ability) by age 60. However, this percentage is much lower in adolescence and young adulthood. Environmental factors and especially non-shared factors appear to have a major impact on the development of these traits early
in life. Nonshared factors are those influence not attributable to genes that are also not share across all children in a family.

**Self esteem**

Traditionally Self esteem has been understood to be positive feelings of self-regard. Various dimensions of Self esteem have been proposed. Vocational Self esteem may be considered to be positive self-regard as it relates to one's value as a worker, or at least one's self-worth as a worker. Discussions of Self esteem suggest that there are two kinds of high Self esteem: secure and fragile (Kernis, 2003). Kernis identifies other types of high Self esteem: defensive high, genuine high, high explicit, implicit positive, contingent high, true high, unstable high, and stable high. The impact of most of these various types of high Self esteem on vocational behaviour and experience has yet to be examined, Self esteem is likely to have a strong impact on job satisfaction, job tenure, effort and performance at work, and quality of relations with coworkers. Vocational Self esteem may be differentiated from vocational self-efficacy, which has in recent years received substantially greater attention in research.

**Occupational self-concept**

Super (1990) refers to occupational self-concept as being analogous to Holland's (1997) congruence concept. Super describes it as the understanding of the self that arises from an individual's comparison (or matching) between their own attributes and those required by an occupation. He says it also involves "consideration of the self in the opportunity structure." One can distinguish between the dimensions of self-concepts (personality traits or other aspects of the self e.g., curiosity, altruism) and metadimensions (characteristics of self-concept dimensions or sets of such dimensions. Finally, one may conceptualize the self-concept in either a static (with focus on the upcoming occupational choice) or developmentally (through a series of a changing preferences).
Fitness

Fitness, strength, and endurance have associates vocational choice and performance. People in some occupations are more fit that those in other occupations, or stronger, or in better cardiovascular shape.

Beliefs

Vocational choice is influenced by the beliefs the individuals develops and refines through four major sources: a) personal performance accomplishments, b) vicarious learning, c) social persuasion and d) physiological states and reactions. How these aspects work together in the career development process is through a process in which an individual develops an expertise/ability for a particular endeavour and meets with success. This process reinforces one’s self-efficacy or belief in future continued success in the use of this ability/expertise. As a result, one is likely to develop goals that involve continuing involvement in that activity/endeavour.

Anxiety

Anxiety may be defined as a psychological and physiological response similar to fear but in response to internal stimuli or in appropriate to reality of external stimuli, it may be a life long constant trait or a transient state relative to specific life events. Anxiety refers to syndrome in which cardiovascular respiratory and nervous symptoms are prominent in the absence of an exploratory medical diagnosis.

The process of making an effective career decision can be a stressful event in an individual life (Sampson, et al. 1996). Several factors contribute to the individuals ability to successfully manage this stressful life event; some factors are related to actual skills needed to make an effective decision, and others are related to the individuals psychological resources. Several individuals have suggested that making an effective career choice may also be stressful, causing the individual confusion and anxiety (Peterson, et al.1991; Sampson, et al. 1996, 1998)
Academic achievement

Academic achievement is usually linked with intelligent individuals who pursue their occupational goals through college. Vocational goals of bright individuals are usually well defined within the realm of their abilities, interests and capacity to succeed. Although these individuals maintain realistic goals, they usually aspire for more prestigious occupational choices as they know their ability level and try to taper the occupational goals they hold into a realistic educational plan (Bregman and Killen, 1999)

Environmental variables influencing Career decision-making process

Globalisation

Globalisation is the trend through which all economic, cultural, and political activities are intensely mediated through global rather than local or national systems. Although various systems have sought such global reach, capitalism has by far been the most effective in implementing this trend. As world economies and the productive resources that they represent become more strongly interdependent, connected and tightly rationalized through market pressures, there will be enormous impact on the career development and work activities of individuals worldwide.

Flat world platform

As proposed by Friedman (2006), an extension of globalisation supporting the ability of individuals to compete and collaborate across the world, brought on by the convergence of three technologies: personal computers, fiber-optic cables and workflow software. Friedman argues that this occurred around the year 2000, and that it is rapidly resulting in a world economy in which individual workers directly compete through their careers with all other workers worldwide. If so, this will have important consequences for their career development.

Images of occupations

Also known as occupational stereotypes (Holland, 1997), images of occupations refers to the set of beliefs people have about the characteristics
typical of people in occupations and the work that they perform. Images of occupations forms a central construct in Gottfredson’s (1996) theory of circumscription and compromise. Some features contained in images of occupations may include the traits of individuals that support successful performance in the occupation, the occupation’s educational requirements, and the nature of the work. There is evidence that the images of occupations are to a large degree shared by all adults in a society.

Work environment

Some theories (e.g., Dawis, 1996; Holland 1997) refer to work environment in lieu of the term “job” or “employer”. Work environment is a general category than can incorporate not only work locale of paid but also unpaid and even nonwork locales. One could even extend the concept to incorporate educational settings in which worker-like skills are exercised.

Social space

In Gottfredson’s (1996) theory of circumscription and compromise, social space refers to the set of images of occupations (in the cognitive map of occupations) that an individual finds acceptable; one may also refer to this as the zone of acceptable alternatives. Within this social space, the individual may prefer some options more than others.

Occupational status

The relative importance of an occupation within a particular society. Although generally treated unidimensionally, may well be multidimensional in nature. Closely related to the concept of occupational prestige.

Social type

One of six types of personality proposed by John Holland in his theory of vocational personalities and work environments (Holland, 1997). The other five are realistic, investigative, artistic, enterprising and conventional. Social types tend to prefer manipulation of other people in order to help them, e.g. through education or therapy. They tend to dislike activities that involve systematic manipulation of machines, tools, and other materials. Thus, mechanical, manual and technical skills are less valued. Social types perceive
themselves as sociable, friendly, kind, empathetic, idealistic, helpful, responsible, understanding, warm, generous, cooperative, and patient. However, others may view them as being overly intrusive and controlling in their apparent helpfulness, as being unjustifiably positive and upbeat, and disingenuous. They often have skills in helping and understanding others and teaching. They tend to value opportunities in which they may be social, act ethically, and solve interpersonal problems.

Social Influence

A theory of career counseling advocated by Dorn (1990), in which the goal of the counselor is to move the client from a static to an active state of behaviour, typically achieved by the counselor encouraging clients to reattribute there are difficulties to factors over which they have some control. Many so-called common factors of psychotherapy may contribute to the degree of social influence that the counselor can apply to encourage such change. Among the most important is the degree to which the client perceives the counselor as expert, trustworthy, and socially attractive.

Peers

Peers have a great effect on the choice of occupational paths, primarily because of the scope of their influence looking for peer acceptance and taking on the peer groups values and perception of observations, the individual begins to construct similar views of new experiences and information. Holland (1997) also concluded that members of the same vocation have similar personalities, further illustrating the potential influence of friends and peers on career related decisions and vocational choices.

Family

Several researchers (Roe, 1966; Young, 1994; Young, Friedson and Dillabough, 1991) have reported on the importance and potential influence of the parents role in career related decisions. Gray and Herr (1995) concur that parents exert a great deal of influence when it comes to career related decisions. Young (1985) concluded that since parents are largely responsible for the socialization process that leads to eventual vocational choices. Research has also found that parents often do not give proper advice
regarding vocational choice and therefore need to be aware of their child's identity before directly career choice. (Dusek, 1987)

**siblings**

Siblings are also an influential factor when choosing a career path. Boys with all male siblings have been found to hold mainly masculine vocational interests, while girls with female siblings hold feminine on researchers have also found that old brothers act as significant role models for younger siblings.

**Educational institutions**

Perhaps the biggest influence on vocational choice are the educational institutions, since they have recently been focusing more on training for occupation, than mere teaching to create more highly educated individuals. Studies have found that 39% of college students regard their high school teachers as the major influence regarding their occupational choices. Studies have also indicted that students feel that they get little or no help from school guidance counselors regarding vocational choice. (Dusek, 1987)

**Media and information sources**

Electronic mass media includes television, radio, and interest exposure to information that might help student in Career decision-making. Maxwell, *et al.* found electronic media to have very little effect on vocational choice, but the degree to which television and radio are present in modern culture their potential as an influence factors is difficult to ignore. Since reading is a skill learned by most students, it must be considered as a potential influence source. Reading is also a source of influence that does not communicate prejudicially, and should be relatively unaffected by disability status.

Although research by Hasse, *et al.* (1979) failed to show that occupational information makes the Career decision-making more effective but definitely it does help to simplify it. Occupational information includes recruitment videos, pamphlets from industrial, trade or government source that offer employment and training information in that context.
To sum up, Career decision-making is a life long process. It is all about exploring and experiencing the world of work. It is also about understanding one's abilities, skills, interests and values etc. and combining these to create a meaningful framework of life by taking appropriate decisions with regards to choice of career. There are many influences that have an impact on a person's decision with regards to his/her career. Although the investigator wanted to see the influences of all these factors affecting Career decision-making but due to time limitations, out of the various variables influencing Career decision-making, the investigator had selected Locus of control, Self esteem, anxiety and Academic achievement to see how these variables account for Career decision-making among undergraduates.

LOCUS OF CONTROL

Individual differences have been demonstrated in the degree to which a person perceives the locus of behaviour or attributes them to fate, luck or external forces. Simply stated Locus of control has to do with placement of responsibility for the outcome of events of behaviours.

Rotter's theory (1954), suggests that people are distributed along an 'Internal – External' continuum. People along the internal continuum feel that their abilities, skills, personal efforts, competence and similar variables control their destiny. In other words, internal people feel that the outcome of events is generally under the control of person. On the other hand, there are some people who feel that whatever happens to them is 'in the cards' controlled by chance and fate, such people are called 'externals' by Rotter who tend to feel that events in the environment are beyond the control of the individual and they blame their failure on events outside themselves, the teacher's hostility, the difficulty of books etc.

Locus of control is an expectancy variable that describes the perception of personal control that one has over the reinforcement that follows his behavior. The effects of reward or reinforcement proceeding behavior depend in part whether the person perceives the reward or contingent on his own behavior or independent of it.
Locus of control is a personality construct referring to an individual's perception of the placement of events as determined internally by his/her own behaviour against luck or external forces.

Using Rotter's (1966) definition, the Locus of control represents an individual's perception of being able or unable to control what happens to him. This formulation of the Locus of control interprets the notion in terms of control, over events. As such it reflects an aspect depicted by Palenzuela (1984) as perceived behavioural outcome contingency. In the same way, it also seems reasonable to think that internal control is manifested as an individual's tendency to perceive himself as the cause of what happens to him and external control as a tendency to attribute this distribution appears to come through the following statements by Wong (1984) “External causality does not necessarily imply the absence of internal control”.

Worchel et al. (1985) say that differences in the perceived Locus of control is important for personal adjustment in the world.

With all the studies done in the area, research findings have shown the following characteristics to be more typical of internals:

- Internals are more likely to work for achievements, to tolerate delays in rewards and to plan for long-term goals.
- As indicated above – after experiencing success in a task, internals are likely to raise their behavioral goals. In contrast, externals are more likely to lower their goals.
- After failing a task, internals re-evaluate future performances and lower their expectations of success. After failure, externals raise their expectations.
- Internals are better able to resist coercion.
- Internals are more likely to learn about their surroundings and learn from their past experiences.
- Internals experience more anxiety and guilt with their failures and use more repression to forget about their disappointments.
- Internals find solving their own bouts of depression easier. Likewise, they are less prone to learned helplessness and serious depression.
- Internals are better at tolerating ambiguous situations.
- Internals are less willing to take risks.
Locus of control, or “internal-external” attitudes, is a psychological concept measuring “a generalized attitude, belief, or expectancy regarding the nature of the causal relationship between one’s own behavior and its consequences” that can influence a variety of behavioral decisions in everyday situations (Rotter, 1966). Individuals hold beliefs regarding whether situational outcomes are due to their own efforts or whether the outcomes are the result of luck, chance, fate or the intervention of others. Individuals who hold beliefs that outcomes are due to their own efforts have an “internal Locus of control” while individuals who hold beliefs that outcomes are due to luck or chance have an “external Locus of control” (Maddux and Cummings, 1991). Thus, the psychological trait, Locus of control, is often referred to as an “internal-external” attitude in the social science and psychology literature.

Locus of control is believed to form during childhood and stabilize during adolescence. Rotter (1966) hypothesized that an individual develops a generalized expectancy of control when reinforcement is perceived as contingent on his or her behavior. Behaviors that result in reinforcement serve to strengthen an individual's perception of control. On the other hand, when reinforcement fails to occur, the generalized expectancy will be diminished or extinguished. Over time, expectancies for a given situation result from the individual's reinforcement history as well as generalizations from other experiences that involve reinforcement. Furthermore, control expectancies are predicted to develop most quickly and the most malleable when then individual has relatively few experiences.

Rotter (1966) dichotomized Locus of control as internal or external, whereas Levenson (1974) constructed a tripartite distinction, on the basis of the idea that the persons with chance orientations believe the world is unordered and thus will behave differently from persons who believe the world is ordered but that powerful others are in control.

According to Zimbardo (1985), a Locus of control orientation is a belief about whether the outcomes of our actions are contingent on what we do (internal control orientation) or on events outside our personal control (external control orientation).
Locus of control is understood as bipolar construct, ranging from external to internal:

<table>
<thead>
<tr>
<th><strong>External Locus of control</strong></th>
<th><strong>Internal Locus of control</strong></th>
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<tr>
<td>Individual believes that his/her behaviour is guided by fate, luck, or other external circumstances</td>
<td>Individual believes that his/her behaviour is guided by his/her personal decisions and efforts.</td>
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Operationally, Locus of control in the present study has been defined as to how an undergraduate student perceives himself or herself in relation to his or her actions, interactions, experiences and outcomes as measured by Levenson's Locus of control.

**Career decision-making and Locus of control**

Psychological theories of career development such as Super's assume that individuals potentially have a moderate degree of destiny control in the process of career choice, despite external obstacles and conditions of inequity (Hotchkiss and Borow, 1990). The Locus of control construct has been operationally incorporated explicitly into psychological theory of development.

Andrisani (1977) used the National Longitudinal Survey (NLS) to study how "initiative"—a four item Rotter (1966) scale measure of Locus of control is related to subsequent labor market outcomes. He found that Locus of control was strongly related to average hourly earnings, total earnings, occupational attainment, and the growth of these variables. He also found that Locus of control could not explain the differences between blacks and whites in labor market outcomes.

McIntire and Walter (1978) assessed the extent to which Locus of control relates to career maturity. The most striking feature of the finding was the career maturity advantage of the students who had internal Locus of control.
Bartsch and Hackett (1979) assessed the effectiveness of an established two year credit course in personal Career decision-making. Results indicated that those participants who had their Locus of control towards internality were considerably more articulate in describing career concepts and more action towards resolving their career concerns.

Super (1981) referred to Locus of control as a “sense of autonomy” or of “internal focus of control” prerequisite to the planning, exploration, and acquisition of career skills and information. In the Career Pattern Study (1983), Super made reference to it under the guise of acceptance of responsibility.

Gardner (1981) intimated that it would be logical to hypothesize a relationship between career maturity and Locus of control, stating that “it seems clear that the person who is more career mature would axiomatically be more internal on Locus of control”.

Lokan and Biggs (1982) investigated student characteristics in relation to affective and cognitive aspects of adolescent career development and found that students with internal Locus of control had higher career aspirations as compared to others with external Locus of control.

Hartman and Fuqua (1983) investigated whether career indecision is a natural aspect of college life and found that undecided students are more anxious, externally controlled and confused as to their identity.

Locus of control has also been shown to be associated with Career decision-making (Denga, 1984). Denga found that male Nigerian school students with an internal Locus of control were likely to choose their occupations based on intrinsic influences (e.g. interest and ability) whereas students with an external orientation were more likely to indicate that chance and good fortune influenced their career preferences. Denga’s 1984 study utilized a very restricted sample, and this, further research needs to be done to determine if this relationship exists in other populations.

Lucas and Epperson (1988) in their research study indicated that students with external Locus of control will be delayed in Career decision-making.
Trice, et al (1989) found that people with an internal Locus of control have greater success in managing their environments, are higher academic achievers and have increased maturity in career choices.

Psychological theories of career development such as Super’s assume that individuals potentially have a moderate degree of destiny control in the process of career choice, despite external obstacles and conditions of inequity (Hotchkiss and Borow, 1990). By contrast, situational or sociological theories of career development have generally viewed work and career choice as embedded in a broad system of social stratification. They place more emphasis on the role of structural (environmental) factors that condition career choices and decisions (Herr and Cramer, 1990). The Locus of control construct has been operationally incorporated explicitly into at least one psychological theory of career development.

Taylor and Popma (1990) in their study on 203 female and 204 male college students found that Locus of control was not a significant contributor of vocational indecision.

Healy (1991) discovered that attributing career success to internal, unstable causes related positively to academic and Career decision-making performance and confidence, whereas attributing success to external, stable causes related to lower performance and confidence.

Locus of control has been found to be related to a variety of choices people make in their lives including vocational and career decisions (Maddux, 1991). Individuals who have an internal Locus of control generally are more active in trying to pursue their goals and improve their lives (Rotter, 1966). Furthermore, through ingenuity and perseverance, they often figure out ways of exercising some measure of control even in situations containing limited opportunities and many constraints (Bandura, 1990). On the other hand, individuals who believe that they have no control over the outcome of situations are likely to effect little change even in situations that provide many opportunities (Bandura, 1990).

Luzzo (1995) in their study on the relative contributions of self-efficacy and Locus of control to the prediction of career maturity found that Locus of
control played an important role in the Career decision-making attitudes of adolescents (N=113).

Luzzo and Ward (1995) in their study on 61 undergraduates found that their career aspirations were significantly related to Locus of control but not to Career decision-making self-efficacy.

Blustein (1996) studied the relationship between selected social cognitive factors and Career decision-making process. He found that internal Locus of control was associated with the attitudinal components of vocational maturity and the rational decision-making styles.

Luzzo and Jenkins-Smith (1996) argued that attributing career decisions to uncontrollable, external causes may serve as a barrier to effective career development.

Crites (1997) in his study suggested that a person who believes that they are in control of the reinforcement sources in life are likely to manage the career development process more successfully than those who do not. Thus individuals with internal Locus of control are more likely to perceive the outcome of the goals they establish and as being determined by their own actions and strivings.

DeMello and Imms (1999) with specific reference to career maturity and development concluded that internal Locus of control is associated with increased maturity in career choices, planning ahead for career options and greater knowledge of self and general work attitudes.

Lent et al. (2000) found meaningful associations between career decidedness, occupational inspirations and internal Locus of control.

Examining the influence of Locus of control on Career decision-making process, Spector's (2000) meta-analysis concluded that high internality was related to career decision. Male and female workers with higher externality scores reported career indecision (Evers et al. 2000), and also perceived limited occupational alternatives for themselves (Blau, 2001).

Bacanli (2006) in study on 399 Turkish Freshman University students from Gazi University, Ankara found that Locus of control and high level of
irrational beliefs are positive predictors of exploratory indecisive impetuous indecisiveness.

Hence, Locus of control, defined as the degree to which an individual believes he/she is in control of personal outcomes is yet another construct essential to the understanding of Career decision-making. The internal Locus of control is characterized by belief in one’s ability to control one’s own destiny, persistence in the face of obstacles or difficulties, and the exhibition of other adaptive traits that enhance chance for success. In short, individual perceiving and internal Locus of control will be more likely to display personal responsibility for their career planning as compare with those perceiving external Locus of control who may believe their Career decision-making is due to chance factor.

SELF ESTEEM

By self, we generally mean the conscious reflection of one’s own being or identity, as an object separate from other or from the environment. There are a variety of ways to think about the self. Two of the most widely used terms are self-concept and Self esteem. Self-concept is the cognitive or thinking aspect of self (related to one's self-image) and generally refers to "the totality of a complex, organized, and dynamic system of learned beliefs, attitudes and opinions that each person holds to be true about his or her personal existence" (Purkey, 1988).

Self esteem is the affective or emotional aspect of self and generally refers to how we feel about or how we value ourselves (one's self-worth). Self-concept can also refer to the general idea we have of ourselves and self-esteem can refer to particular measures about components of self-concept. Some authors even use the two terms interchangeably.

According to Franken (1994) there is a great deal of research which shows that the self-concept is, perhaps, the basis for all motivated behavior. It is the self-concept that gives rise to possible selves, and it is possible selves that create the motivation for behavior.

One of the major issues facing children and youth today according to Huitt (2004) that one’s paradigm or world view and one’s relationship to that
irrational beliefs are positive predictors of exploratory indecisiveness and impetuous indecisiveness.

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view provide the boundaries and circumstances within which we develop our vision about possibilities.

Franken (1994) suggests that self-concept is related to self-esteem in that people who have good Self esteem have a clearly differentiated self-concept. When people know themselves they can maximize outcomes because they know what they can and cannot do.

Coopersmith (1967) explains Self esteem in terms of evaluative attitudes towards self. It refers to an attitude of approval or disapproval and indicates the extent to which an individual thinks him to be successful, important and worthy. Rosenberg (1965) described it as a favourable or unfavourable attitude toward the self.

According to the Oxford English Dictionary (1996) primary definition of Self esteem is favourable appreciation or opinion of oneself.

Self esteem is the way one feels about oneself, including the degree to which one possesses self-respect and self-acceptance. Self esteem is the sense of personal worth and competence that persons associate with their self-concepts. Dusek (1987) describes Self esteem as the value, the individual’s views of his competencies, both intellectual and social, and these views in turn are related to the way he will act in social situations. A positive self-concept, as reflected in Self esteem, is important for the individual’s general outlook and mental health. Those who have high Self esteem tend to be better adjusted socially than those who have relatively low Self esteem.

Hales (1989) defines Self esteem as the evaluative function of the self-concept. Self esteem thus is the affective or emotional experience of the evaluations one makes with respect to one’s personal worth. With this definition, Self esteem might be defined as how one feels about one’s perceptions of self or one’s self-concepts.

Self esteem is generally considered the evaluative component of the Self concept, a broader representation of the self that includes cognitive and behavioural aspects as well as evaluative or affective ones. It refers to an individual’s sense of his or her value or worth, or the extent to which a person
values, approves of appreciates, prizes, or likes him or herself (Blascovich

Self esteem empowers, energizes, and motivates to respond
appropriately to challenges and opportunities. It inspires persons to achieve
and allows them to take pleasure and pride in their achievements. It allows
them to experience satisfaction. Maslow (1954) studied the Self esteem
needs and he reported that the Self esteem is related to the process of
becoming a self-actualizing person. According to him, all people have a need
or desire for a stable, firmly based sense of self-regard or self-respect and
they need esteem from themselves and from others. He classified two
categories of esteem needs. The first set of esteem needs includes the desire
for strength, for achievement, for adequacy, for mastery, for competence, for
self-confidence and for a degree of independence and freedom. The second
category of esteem needs involves the desire for prestige, status, recognition,
attention, dignity and appreciation, all of which are characteristics of esteem
based on other's views of the person. Coopersmith (1981) states that Self
esteem is acquired inferentially from comments made by others, personal
perceptions, and actions of others.

Harter (1990) has defined Self esteem as how much a person likes,
accepts, and respects himself or herself overall as a person. Brown and
Alexander (1991) define Self esteem as the way individuals perceive and
value themselves.

Branden (1994) says that Self esteem is the experience of being
competent to cope with life's challenges and being worthy of happiness.

It consists of two components:

- Self esteem-efficacy i.e. confidence in one's ability to think, learn,
  choose, and make appropriate decisions, and, by extension, to master
  challenges and manage change.

- Self-respect i.e. confidence in one's right to be happy, and, by
  extension, confidence that achievement, success, friendship, respect,
  love and fulfillment are appropriate for oneself.

Self-efficacy and self-respect are the dual pillars of healthy Self
esteem; if either one is absent, Self esteem is impaired. They are the defining
characteristics of the term because of their fundamentality; they represent not derivative or secondary meanings of Self esteem, but its essence. (Branden, 1994).

Self esteem is a particular way of experiencing the self. It involves emotional, evaluative, and cognitive components. It also entails certain action dispositions to move towards life rather than away from it; to move towards consciousness rather than away from it; to treat facts with respect rather than denial; and to operate self-responsibly rather than the opposite.

Baumeister et al. (1996) defined Self esteem as a favourable global evaluation of oneself. The term Self esteem has acquired highly positive connotations, but it has simple synonyms the connotations of which are more mixed, including egotism, arrogance, conceitedness, narcissism, and sense of superiority, which share the fundamental meaning of favorable self-evaluation.

According to Clarke (1998) Self esteem is feeling lovable and capable. They are two sides of the same coin. Self esteem is both gleaned from those around us (being loved and valued) and earned (becoming a capable, growing person). Both components are equally important.

Guindon (2002) adds that there are two kinds of Self esteem, global and selective Self esteem. Global Self esteem is defined as an overall estimate of general self-worth i.e. level of self-acceptance or respect of oneself. Selective Self esteem is an evaluation of a specific trait or quality that is weighted and combined into an overall evaluation of oneself.

It is the disposition to experience oneself as being competent to cope with the basic challenges of life and of being worthy of happiness. It is confidence in the efficacy of our mind, in our ability to think, to learn, to make appropriate choices and decisions, and respond effectively to change. It is also the experience that success, achievement, fulfillment-happiness are right and natural for us (Branden, 1994).

In the present investigation Self esteem has been operatinally defined as the extent to which the undergraduate student values, approves, appreciates or likes himself or herself as measured by Cooper smith Self esteem inventory.
Career decision-making and Self esteem

Research studies have shown that Career decision-making is closely related to Self esteem because it requires someone to have belief in their ability to make appropriate decisions even though important others in their life may disagree with them.

An interesting conceptual link that offers some promise as a way of relating self and occupational concepts is Self esteem. Korman began a series of investigations studying the role of Self esteem in career preferences and vocational development. In one study, Korman (1966) found that high Self esteem individuals are more likely to implement their self-concept through occupational choice than are low Self esteem individuals (a finding that is a logical outgrowth of Schuh's [1966] criticism). In a more complicated study, Korman (1967) tested the hypothesis that Self esteem is related to the perception of the difficulty of an occupation, and as a result, serves as a moderator of occupational choice. The results strongly indicated that individuals with high Self esteem seek high ability demand situations in their work. A balancing effect is suggested by Korman; that is, those who see themselves as competent will seek and enter competence-demanding situations, and vice versa. Korman calls this as closed-loop situation, suggesting that feedback enhances an already existing tendency to accept or reject challenging situations, which feeds back on Self esteem, and which then effects the tendency to accept challenge, and so on.

In still another study, Korman (1968) tested the idea that individuals display cognitive consistency in their vocational behavior. In this study, he found that task success and task satisfaction are positively related for people with high Self esteem but not for individuals with low Self esteem. The former individuals use their own internal frame of reference to determine the value they place on a task and its performance, but the latter look to other individuals to set their standards. Finally, Korman (1969) examined and found support for the hypothesis that Self esteem serves as a moderator variable in high Self esteem individuals and they are more likely to seek self-fulfillment in their work than low Self esteem individuals.
Not all the research dealing with Self esteem and vocational choice has produced clear results. Resnick *et al.* (1970) postulated that college students with high and low Self esteem (Self esteem defined in terms of scores on the Self esteem scale of the Tennessee Self-Concept Scale) would differ in vocational crystallization defined in terms of the differentiation of the Kuder Preference Record profiles and self-reported certainty of vocational plans. No differences were found on the Kuder, though the high Self esteem students expressed greater certainty about their career plans than did the low Self esteem students.

Korman (1970) has suggested a balance approach to explaining the complexed relationship between Self esteem and vocational behavior. Korman presents the idea that the self-concept of the individual at the moment is the result of the goals sought and the outcomes that will be satisfying: People will find maximally satisfying those behaviors that permit them to feel they are behaving consistently. Applied to Self esteem then, “to the extent that an individual has a self-cognition as a competent, need-satisfying individual, then, to that extent, will choose and find most satisfying those situations which are in balance with these self-perceptions.

Greenhaus and Simon (1976) found that Self esteem and career salience combine to produce an increased likelihood that one’s occupation would be viewed as ideal.

Janis and Mann (1977) studied Career decision-making of adolescents and cited that cognitive ability, threats to status, and Self esteem may influence decisional conflict.

Kishor (1981) investigated the effect of Self esteem and Locus of control in Career decision-making in (N=224) adolescents. Results showed that both Self esteem and Locus of control, significantly effect the career decisional status. Correlational analyses showed that while both variables had significant relationship with Career decision-making, Locus of control accounted for greater variance.

Although career indecision has been viewed as a normal stage of development that most young adults resolve relatively easily with or without
counseling or informational assistance (Fuqua and Hartman, 1983), there is a subset of young people who are called “achronically undecided” or indecisive (Hartman et al., 1985). Career indecision was found to be related to low levels of Self esteem.

Self esteem has frequently being examined with decision-making research. Holland (1985) found that adolescents who score high on Self esteem have more lucid conceptions of themselves relative to career interests and career decisions-making than students scoring low on Self esteem.

Levy and Baumgardner (1987) found that Self esteem made significant contribution to goal choice. They argued that those with higher esteem have experienced more successes than failures; therefore, their expectations of achieving any goal should be greater. Moreover recent research has also characterized high esteem individuals as expecting to succeed, more accustomed to success, and by definition, more confident in themselves.

Arnold (1989) examined the relationship between career indecision and psychological well being with a sample of two cohorts of undergraduates. In He found a significant link between Career decision-making and psychological well being which included Self esteem and self confidence.

Chiu (1990) investigated the relationship of career goal and Self esteem among adolescents and concluded that adolescents with specific career goals had significantly higher Self esteem than did those without any career goals.

Greenberg et al. (1992) utilizing adolescent samples indicates that Self esteem acts as an anxiety buffer, thus individuals with a high Self esteem appear better equipped to manage the adaptive process of developing career interests and making career related decisions.

Munson (1992) in his study on Self esteem, vocational identity and career salience in high school students, found that high Self esteem students had significantly higher scores on vocational identity and it could therefore be concluded that they had a more clear and consistent view of their goals, interests, personality and talents than low Self esteem students.
Chartrand et al (1994) studied the issue of vocational indecision concerning undergraduates and concluded that career decidedness was significantly related to Self esteem.

Arnold and Mosterson (1994) found that decisional levels and levels of psychological well being were strongly correlated to Self esteem.

Research indicate that students with low Self esteem will be delayed in their Career decision-making. Betz and Voyten (1997) found that low levels of Self esteem may delay a student from taking a decision related to career goal attainment.

Nota and Soresi (1998) highlighted in a group of 319 students about to choose a university course of study, those who were very indecisive also felt greater levels of discomfort in situations in which assertive behaviours might be required.

Gordan (1998) studied career decidedness of 249 undergraduates at a large south-eastern U.S. University with representation from all four years, the results showed that career decidedness was positively and significantly related to Self esteem and self efficacy.

Career decision-making has been linked to psychological well being. Zamostny and colleagues (2002) found that career decidedness was related to anxiety, interpersonal relations, Self esteem and family problems.

Creed, et al (2002) found that students with high level of Self esteem showed higher levels of career planning, career exploration, were more decided about their career decision and had more career goals. On the other hand, those with low levels of Self esteem had lower levels of career and decision-making knowledge and were more indecisive.

Hence, research indicates that those individuals who score high on Self esteem have more lucid conceptions of themselves, relative to career interest and Career decision-making than individuals scoring low on Self esteem. Thus, individuals with a high Self esteem appear better equipped to manage the adaptional process of making career related decisions.
CAREER CHOICE ANXIETY

Anxiety is a persistent state of dread and apprehension. It is characterised by helpless and impotence in danger situation. The anxious person feels that there is actually nothing that he can do immediately to facilitate escape or avoid the approaching danger. Anxiety implies that the person is incapable of taking precautionary measure.

The first reference of anxiety in medical literature came into 1870 in the British Medical Journal reported by McReynolds (1975). But Freud was the first in the scientific tradition to see the fundamental significance of the problem. He made the customary distinction between fear and anxiety. Freud holds that in fear, the attention is directed to that object, whereas anxiety refers to the condition of the individual and ignores the object.

Izgard (1962) opined that anxiety is a pattern of emotions, a complex emotional reaction that includes fear as well as other fundamental emotions and their interactions and it cannot be adequately conceptualised and understood or effectively assessed and treated, when considered as a unitary concept.

Sometimes, anxiety and stress are associated with obsessions, persistent unwanted thoughts, impulses, irrational behaviours repeatedly carried out in a fixed repetitive way. It also illustrates an obsessive compulsive form of a problem, Wolpe (1973).

Anxiety is a concern or solicitude respecting something or event, future or uncertain, which disturbs the mind, and keep it in a state of painful uneasiness. Anxiety is often described as having cognitive, somatic and behavioural components (Seligman et al., 2001).

Hence, from the above we can conclude that anxiety is a persistent state of dread and apprehension. It is a continuous tension and the person is unaware of its root cause and some times, it lead to irrational behaviours. A series of theoretical models relating Career indecision and anxiety are presented vide figure 1.10 followed by their explanation.
Theoretical models relating career indecision and anxiety

Figure 1.10 presents six theoretical models that have been developed to represent potential patterns of relationships that may exist between anxiety and career indecision. As can be seen in Figure 1.10, the models progress from rather simple to complex representations of the relationship between these two constructs.

Figure 1.10 Theoretical models relating career indecision and anxiety
(Goodstein, 1965)
**Directional model**

Directional Model 1A, illustrated in Figure 1.10, presents anxiety as an effect, or result, of the client's inability to make an effective career decision. Anxiety is viewed as a learned response to the undecided state. It is this model that best represents career indecision that is related to maturational factors or informational deficits and, as such, would likely be most responsive to traditional career intervention strategies (i.e., self-exploration, interest testing, values clarification, and career information). The focus of intervention would be Career decision-making, the achievement of which would be expected to produce a corresponding reduction in the level of anxiety.

**Directional model**

Directional Model 2B, represents Goodstein's second hypothesis of the relationship between anxiety and career indecision. In this model, the antecedent presence of anxiety is believed to inhibit the acquisition and use of the knowledge and skills prerequisite to effective Career decision-making. Career indecision occurs as a symptom of excessive anxiety. The primary focus of intervention in this case would be anxiety reduction. Once achieved, career interventions would be the secondary focus.

**Extended directional model**

The Extended Directional Model 1C, is an illustration of the relationship between anxiety and career indecision that might be more consistent with psychoanalytic thought. Some intrapersonal conflict creates an anxious state that, in turn, interferes with career development, resulting in what has commonly been referred to as a career “indecisive” state. Ideally, intervention would initially focus on identifying and "working through" the intrapersonal conflict, which would reduce the anxiety. The focus of intervention would then shift to career development and decision-making.

**Concurrent symptoms model**

In Figure 1.10, the Concurrent Symptoms Model 1D, illustrates a related possibility. Given the substantial relationship between anxiety and career indecision, it is possible that both may emerge as concurrent symptoms of some underlying problem.
Reciprocal Model

A client experiencing even moderate levels of anxiety would be expected to be less effective in making important decisions. Conversely, career indecision, by its very nature, can be expected to increase anxiety levels. Thus, the reciprocation might be expected to continue. Appropriate intervention, under these circumstances, would likely consist of concurrent treatment of the anxiety and indecision. Unable to determine any causal pattern in this case, the therapist would simultaneously apply anxiety reduction strategies and career interventions.

Extended Reciprocal Model

Not only can anxiety and career indecision interact reciprocally, but each can, and probably does, interact with more deep-seated psychological problems. Suppose, for example, that a client is experiencing some arrested development in identity formation, which is frequently suggested in the literature (Harman, 1973; Salomone, 1982). The poor identity formation may be expected to preclude the effective projection of self-structures into the career development process, thus directly producing some anxiety as well.

In the present investigation anxiety has operationally been defined as Career choice anxiety. It is the persistent state of dread and apprehension which the undergraduate student experiences while making decision of a career from among several choices available as measured by Charles D Speilberger inventory.

Career decision-making and Career choice anxiety

The process of making an effective career decision can be a stressful event in an individual life (Sampson et al. 1996). Several factors contribute to the individuals ability to successfully manage this stressful life event; some factors are related to actual skills needed to make an effective decision, and others are related to the individuals psychological resources. Several individuals have suggested that making an effective career choice may also
be stressful, causing the individual confusion and anxiety (Peterson et al. 1991; Sampson et al. 1996, 1998).

Hornak and Gillingham (1980) in their study concluded that anxiety is an antecedent of career indecision.

Brown and Strange (1981) found that anxiety was consistently related to career indecision and was greater among college students who had not made a commitment than those who had.

Studies confirm the association of Career choice anxiety and career indecision (Fuqua and Hartman, 1983; Fuqua et al. 1987; O'Hare and Tamburri, 1986). These studies are primarily of high school and college students. The association of career indecision and Career choice anxiety among undergraduate students between the ages of 20-24 years remains virtually unexamined. Yet, such adults are likely to make multiple occupational changes in the first several years after they leave school (Bureau of Labour Statistic, 1998).

Hawkins et al. (1987) noted the special significance of understanding the role of anxiety in indecision because of the central role of anxiety in personality theory.

Lopez and Andrew (1987) found that career indecision was related to personality characteristics i.e. anxiety, low Self esteem and external Locus of control.

Fuqua et al. (1988) reported high levels of anxiety among career undecided individual than among those who are career decided.

The level of anxiety experienced by any given individual is likely to be related to specific characteristics of the indecision. For example, Fuqua et al. (1988) reported high levels of anxiety among individuals for whom indecision was characterized by pervasive informational deficits (i.e., about self and career), whereas anxiety levels were significantly lower among individuals for whom indecision was related to multiple career possibilities. Generally, anxiety would be expected to increase as the nature, scope, and consequences of career indecision are perceived as more serious by the individual.

- Those who are career decided, relatively free of anxiety.
- Those with moderate career indecision, some anxiety and internal Locus of control.
- Those with serious career indecision, modern anxiety and external Locus of control.
- Those with serious career indecision, excessive anxiety and external Locus of control.

Newman et al. (1989) focused on identifying correlates of career indecision and found that anxiety was a major cause of career indecision.

Negative and dysfunctional career thoughts and belief have been characterised by career theorists as dysfunctional career beliefs (Krumboltz 1990) dysfunctional cognitions (Corbishley and Yost, 1989) dysfunctional self beliefs (Borders and Archadel, 1987), faulty self efficacy beliefs (Brown and Lent, 1996) and self defeating assumptions (Dryden, 1999).

Spokane (1991) has noted that Career choice anxiety may lead some prospective clients to eschew career counseling and other clients to discontinue counseling prematurely. In other words, anxiety may prevent them from the very actions that would relieve their indecision and reduce their anxiety.

Gribben and Keitel (1992) examined the relationship between state anxiety, trait anxiety, problem orientation, problem-solving skills and career indecision of 120 students from a multiethnic, urban community college. Results indicates that anxiety contributed to career indecision. Trait anxiety exerted a stronger indirect effect on career indecision than a direct effect while state anxiety was found to directly influence career ambivalence.

Greenhaus and Callahan (1992) described indecisiveness as reflecting a more permanent inability to form a career decision, perhaps rooted in a personality disorder like anxiety.

Mortimer et al. (1992) suggested that vocational maturity is related to interpersonal competence, self confidence and low anxiety. They concluded that providing career exploration opportunities for emerging adults will not only
enhance their knowledge about potential career opportunities, but also lead to a reduction in Career choice anxiety.

Cohen et al., (1995) used psychological, characteristics i.e. Career choice anxiety, generalized indecisiveness, need for career information and high need for knowledge to identify group of individuals representing these types. Results revealed that chronically undecided had higher level of Career choice anxiety, generalized indecisiveness, need for career information and need for self knowledge and developmentally undecided individuals had moderate levels of Career choice anxiety, low levels of generalized indecisiveness, high need for career information and moderate need for self knowledge.

The negative verbalisations make the career problem solving and decision-making process more difficult and often cause the individual to avoid it all together (Sampson, et al 1996).

Dysfunctional career thoughts have been found to be positively correlated with the inability to choose a major field of study for undecided college students (Kilk, 1997).

Dysfunctional Career thoughts have been found to be negatively correlated with having a disability (Decision-making confusion, commitment, conflict, anxiety) by college students (Dipeolu, 1997).

Barlow’s (2000) model of vulnerability for anxiety suggests that persons coping with career indecision who perceive control over their career choice context, both the personal and environmental facets, are likely to experience lower choice anxiety as they increase their level of coping. Individuals who perceive low control, in contrast, would not be expected to reduce their choice anxiety, as much, if at all.

Germeijs and Verschueren (2006) studied the effect of some personal and environmental factors on Career decision-making and found that Career decision-making and career indecision was related to anxiety. Hence, inability to make a career decision is often related to underlying psychological dysfunction i.e. Anxiety
The research studies mentioned above clearly indicate that making an effective career choice may also be stressful and can cause the individual confusion and anxiety.

ACADEMIC ACHIEVEMENT

Achievement refers to accomplishment. It signifies successfully carved out performance by an individual or a group as assessed after completion of a task whether it be academic, manual or social.

Academic achievement refers to the degree or level of success or that of proficiency attained in some specific area concerning scholastic or academic work. In general, it refers to scores obtained in the annual examination. It is measured and assessed by achievement tests and compared to the set norms to evaluate an individual performance.

The term academic has been derived from the term academy which means a school where special types of instructions are imparted. Academic achievement has been assessed in variety of ways such as Grade Point Average (GPA), performance on standardised tests on the Stanford Achievement Test (SAT), the Science Research Associated test (SRA) and scores on essay type examination etc.

Crow and Crow (1969) defined achievement as the extent to which learner is profiting from instruction in a given area of learning.

Academic achievement is the core of wider term "educational growth" which means growth in all aspects. An achievement is a status of level of person’s learning and ability to apply what he has learnt. It is reflected in test scores, marks or grades attained in different examination. This determines the status of pupil with respect to attained skills or knowledge as compared to other pupils in the subject in which they have received instructions in school.

Academic achievement means the amount of knowledge gained by the students in different subjects of study. It encourages the students to work hard and learn more. Also it helps the teachers to know whether their teaching methods are effective or not and helps them to bring improvements.
accordingly. Thus, Academic achievement helps both the teachers and students to know where they stand. Different educationists have their own viewpoint with regard to Academic achievement.

According To Trow (1941) Academic achievement is the attained ability or degree of competence in school tasks, usually measured by standardized test and expressed in grades or units based on norms, derived from a wide sampling of pupils performance.

According to Mehta (1969) there is difference between the word ‘performance and achievement’. He opines that the word ‘performance is a wider term’ which includes both the academic and counselor performance of an individual; while achievement is the learning outcome of a student. A level of achievement in the academic field of a student is included in the performance of the individual. The present study deals with only the Academic achievement of the students.

Good (1973) in the Dictionary of Education defined, Academic achievement as the knowledge attained or developed in school subjects usually designated by test scores or marks assigned by teachers.

According to Hawes and Hawes's, in the Concise Dictionary of Education (1982), the word academic means referring to the institutional system of formal education within school, college or university, theoretical and not of practical importance a scholarly person who works in higher education.

According to Sullivan (1987), it is the level of learning in a partitioned area of subject in terms of knowledge, understanding, skills and application, usually designated by test scores or marks assigned by the teacher or both.

According to Steinberger (1993) Academic achievement encompasses student’s ability and performance. It is intricately related to cognitive development. It is the quality and quantity of a student’s work.

According to Advanced Twentieth Century Dictionary (1995), the term academic is related to education or to an academy or other educational institution.
Ladson (1999) states that at its best, Academic achievement represents intellectual growth and ability to participate in the production of knowledge. At its worst, Academic achievement represents inculcation and mindless introduction of the young into the cannons and orthodoxy of the old.

According to Megargee (2000), Academic achievement tests how well students have mastered the subject matter in a course of instruction.

According to Oxford Advanced Learner’s Dictionary (2000), achievement is a thing that somebody has done successfully especially with his/her own effort and skill.

From the definitions given above, it may be concluded that Academic achievement is the core of wider terms educational growth and perhaps none would deny the importance of Academic achievement in child’s life.

Thus Academic achievement can be defined as the sum total of information gained after completing a course of instruction (partially or fully) in a particular grade that the individual has obtained on an achievement test.

In the present investigation, Academic achievement has been measured by the scores of undergraduates in their last examination 10+2 i.e. class XII examination.

Career decision-making and Academic achievement

Good academic scores are related to one’s occupational choices. Reddy (1971) reported significant relationship between occupational choices and Academic achievement of pupils.

Osipow and Waddell (1980) examined the relationship between career decision scale and grade point average for the first term freshmen and found no significant relationship between achievement types and career decision scores. Similar results were also reported by Rogers (1980).

Ware and Pogge (1980) suggest that students may accept or reject career possibilities because of their level of dissatisfaction with their educational attainment.
The notion of congruence between an individual's occupation and her or his career interests is an integral part of Holland's (1985) theory of vocational choice. Holland postulated that vocational satisfaction, stability, and achievement depend directly on the congruence (or match) between one's personality and the environment in which she or he works. In a review of person environment congruence research, Spokane (1985) provided substantial evidence that the congruence between a person's occupation and her or his inventoried vocational interests is positively correlated with various measures of adaptive career functioning, including academic performance, academic persistence (i.e., retention), and job satisfaction.

Healy and Mourtan (1987) found that career development is linked to Academic achievement through several mechanisms including career development skills and career anxiety.

Hall and Kelly (1995) in two studies involving 314 junior high school students examined the effects of Academic achievement, sex and urban/rural community residence on Career decision-making and findings suggested that age, sex and level of academic ability interact.

Academic achievement is usually linked with intelligent individuals who pursue their occupational goals through college. Vocational goals of bright individuals are usually well defined within the realm of their abilities, interests capacity to succeed. Although these individuals maintains realistic goals. They usually aspire for more prestigious occupational choices as they know their ability level and try to taper the occupational goals they hold into a realistic educational plan (Bregman and Killen, 1999)

According to Bandura and Pastorelli (2001) as adolescents mature, they begin to formulate occupational choices, widely influenced by academic performance, college education and socio economic status. Strage et al. (2002) found that students with high Academic achievement were able to identity in which courses they felt they could get a good grade.

Mc Kenney and his colleagues (2003) examined data from 548 job postings in a college recruitment program and found that Academic achievement was related to career indecision.
Hence, Career decision-making is widely influenced by Academic achievement and various research studies have indicated that high Academic achievement is positively associated with Career decision-making. It may be assumed as one of the predictor variables of Career decision-making.

**CAREER DECISION-MAKING AND GENDER DIFFERENCE**

Gender difference in vocational choice are more often governed by the social environment and sex role projection. The fact that men and women consistently choose and enter different careers is well known. In addition, as number of women pursuing higher education and careers continued to increase, it is important for counselors to be aware of gender differences in Career decision-making.

Astin and Panos (1969) in their study concluded that sex is stronger factor than academic ability in predicting career choice.

A typical study of high school seniors showed that boys generally preferred high status careers offering opportunities for independence and leadership while girls preferred lower status occupation in social service field (Singer, 1974).

South African researches have also failed to establish gender differences in Career decision-making of adolescence (Stead, 1989).

Lokan et al. (1982) reported significant gender differences favouring girls on career decision status.

Cook (1983) concluded that men and women differ in their career choices. Astin (1984) and Fitzgerald and Betz (1994), also came to the conclusion that the determinants of occupational behavior of women are different from those of men.

Studies of the relation between gender and career decision of adolescents have produced mixed results. Studies have alternatively reported female adolescents are being more career decided than males (Vondraceck et al 1990) males being more decided than females (Kishore 1981) or have found no gender difference (Niece and Bradly 1979).
Farmer (1985) suggested that although career choices of men are not affected by sex roles and stereotypes as they were a decade earlier but still women are more likely to experience role confusion than men in the career development process.

Gianakos and Subich (1988) in their study concluded that gender differences play a significant role in career development. Women tend to select female dominant careers but report strong percepts of self-efficacy in Career decision-making and native achievement related tasks in their careers.

Betz et al. (1990) found that individuals endorsing masculine and androgynous personality characteristics are more likely to use their abilities when considering career choices than individuals who endorse feminine characteristics.

Newman et al. (1990) suggested that gender differences in career development exist along various dimensions i.e. career decision structure and career decision process differences.

In a longitudinal study of the dimensions of careers Indecisions, Vondracek et al. (1990) reported that changes in decision status among females were more readily observable than among males. These studies reported gender differences among possible antecedents of career indecision.

Kelly and Colangelo (1990) in their research into the influence of gender on career decision status found that gender plays a negligible role in the process of career development or that its role is determined largely by contextual factors (eg. Equality of opportunity and access to alternative career options).

Swanson and Tokar (1991) found that, among a sample of college students participants perceived existence of barriers in a variety of college related topics although no gender differences were apparent.

Wallace-Brosious et al. (1994) found that girls reported greater certainty than boys about career choices.
Gianakos (1995) reported that for most individuals, gender plays a significant role in alternatives they choose and in the eventual choices they make regarding occupational pursuit and role choices.

Gati et al. (1995) identified gender differences in the structural and optimal levels of preferred career related aspects. The gender difference in career preference may be related to socialization, career development, career goals, values and many other influencing factors.

Lucas et al. (1997) reported significant gender differences on Career decision-making attitudes.

Seymour and Hewitt (1997) found that young women are more likely than young men to consult others about career decisions and are more influenced by the opinions of others and often consider the need of others in making career decisions (O’Brien et al., 2000).

Research has examined gender and ethnic differences in barriers to career development. McWhirter (1997) examined gender differences in Career decision-making among 1,139 Mexican American and European American high school juniors and seniors. Results of this investigation demonstrated that female participants anticipated more barriers in Career decision-making than did male participants.

Lent et al. (2000) found that gender differences in perceived barriers and facilitative variables (e.g. opportunity structure, support system) affect the congruence of career interests with career goals, as well as the congruence between ability and action towards goals.

Perrone, et al. (2001) found significant gender differences in barriers and facilitators to career goals. Men indicated that their career goals were based on both intrinsic interest and high anticipated earnings, whereas women based career goals on intrinsic interest and prestige of occupation.

Research studies offer contradictory and inconsistent conclusions in demonstrated significant gender related difference on Career decision-making. While some found no differences, still others have provided support in favour of females having greater Career decision-making, while many studies existed which did not substantiate these findings. Hence, the
investigator wanted to explore the extent of influence that gender has on Career decision-making of undergraduates in the present study.

SIGNIFICANCE OF THE STUDY

Making a career choice is not an easy decision today, not because of lack of choices but because of multiplicity of choices. It is rare, to find a person who knows with real certainty what he wants to be and then follows that dream into sunset for a lifetime. Various choices and many opportunities tend to bewilder an individual who gets distracted due to their multi-directed scope. It is the problem not only of the individual but of the society which has to spell out its quantitative, qualitative, spatial and temporal objectives within its organizational milieu. Hence, planning in the field of education and vocation is of paramount importance.

Career decision-making would have been easy if we could completely predict the outcome of each career option. Moreover each option, will involve some risk and uncertainty since we cannot predict an unpredictable future. Many college students avoid making a decision about a career because they fear they will make a wrong decision. They may believe that wrong decision will result in being stuck in a job they hate forever. Frequently, students hold onto false hope that somehow perfect career will present itself to them without any effort or risk involved.

Giving students the tools and knowledge to realistically plan for their future is primary goal of education. Although young people have high ambitions, expecting to be well educated and have professional careers, many do not develop coherent plans for achieving their goals (Schneider and Stevenson, 1999).

Various educational commissions have introduced vocational and technical components and the balance between general and vocational education has been improving over years. However, much has not been accomplished in the implementation of career education and vocational guidance with this system of education.
Studies reflect that career indecision, which may be broadly defined as the inability to select and commit to a career choice, is a common problem among college students, with some estimates as high as 50% [Gianakos 1999; Sepich 1987]. A large body of research has suggested that career-undecided individuals may experience a number of problems, including greater anxiety, lower Self esteem, less effective self appraised problem solving to a greater extent than their less decided counter parts [Chartrand et al., 1990].

Researchers have also come out with varied results, at times complementing each other but at times contradicting each other. Although the variable selected in the present study have been studied individually, but not much of work is done in the present combination; and moreover very little study has been conducted in this part of the country.

Hence, given the prevalence and seriousness of career indecision, additional research is needed to understand the independent variables of Locus of control, Self esteem, Career choice anxiety and Academic achievement and how they influence the dependent variable of Career decision-making of undergraduates.

STATEMENT OF THE PROBLEM

The present study, therefore, is an endeavour to find the aforementioned relationships. The title of the study reads as under:-

CAREER DECISION-MAKING OF UNDERGRADUATES IN RELATION TO THEIR LOCUS OF CONTROL SELF ESTEEM CAREER CHOICE ANXIETY AND ACADEMIC ACHIEVEMENT
DELIMITATIONS OF THE STUDY

In research, delimitation of a problem is essential because in delimitation not only the researcher pinpoints the problem, but one also gets some guidelines for the collection of relevant data. The present study under investigation was to be delimited with respect to following:

1. The study was delimited to the state of Punjab in North India.
2. The study was further confined to 6 degree colleges of the state of Punjab only.
3. It was delimited to first year degree college students of Arts, Commerce, Medical and Non-Medical streams.
4. 637 undergraduates constituted the sample since an in depth analysis was planned in respect of the variables selected.
5. The study was further delimited to the variables of Career decision-making, Locus of control, Self esteem, Career choice anxiety and Academic achievement.

OBJECTIVES OF THE STUDY

The study was conducted on the basis of the following objectives:

1) To study the nature and distribution of variables understudy viz; Career decision-making, Locus of control, Self esteem, Career choice anxiety and Academic achievement, in case of all the groups and sub groups.

2) To find out the number of students who exhibit Decidedness, Tentativeness and Undecidenedness in Career decision-making.

3) To compare Decided and Tentative groups on the variables of Career decision-making, Locus of control, Self esteem, Career choice anxiety and Academic achievement.

4) To compare Science and Humanities groups on the variables of Career decision-making, Locus of control, Self esteem, Career choice anxiety and Academic achievement.
5) To compare Decided and Tentative students of Science and Humanities groups on the variables of Career decision-making, Locus of control, Self esteem, Career choice anxiety and Academic achievement.

6) To find out whether Boys and Girls exhibit any differences with regards to their Career decision-making, Career choice anxiety, Self esteem, Locus of control and Academic achievement.

7) To find out whether Science (Medical and Non-Medical) students exhibit more definiteness with regard to their career choices in comparison to Arts and Commerce.

8) To find out the relationship between the criterion variable of Career decision-making and independent variables of Locus of control, Self esteem, Career choice anxiety and Academic achievement, in case of Total sample, Boys and Girls, Decided and Tentative groups and four sub groups i.e. Arts, Commerce, Medical and Non-Medical.

9) To find whether each independent variable of Locus of control, Self esteem, Career choice anxiety and Academic achievement has anything at all to contribute to the prediction of criterion variable i.e. Career decision-making as well as to see whether independent variables taken together conjointly have any contribution towards criterion variable.

HYPOTHESES OF THE STUDY

On the basis of above mentioned objectives, following hypotheses were proposed to be tested.

1) The sample under study has definite choice in Career decision-making and; high level of Self esteem, high Academic achievement, low level of Career choice anxiety and belief about Individual control in case of Total sample, Boys and Girls, Decided and Tentative groups and four sub groups i.e. Arts, Commerce, Medical and Non-Medical.

2) A large number of students at undergraduate level would exhibit Decidedness with regards to their career choices.
3) Significant differences exist between Decided and Tentative groups on the variable of Locus of control, Self esteem, Career choice anxiety and Academic achievement.

4) There exists significant difference between Science and Humanities groups on the variables of Career decision-making, Locus of control, Self esteem, Career choice anxiety and Academic achievement.

5) a) There exists significant difference between Decided and Tentative students of the Humanities group on the variables of Career decision-making, Locus of control, Self esteem, Career choice anxiety and Academic achievement.

b) There exists significant difference between Decided and Tentative students of the Science group on the variables of Career decision-making, Locus of control, Self esteem, Career choice anxiety and Academic achievement.

6) There exists significant difference between boys and girls on the variables of Career decision-making, Locus of control, Self esteem, Career choice anxiety and Academic achievement.

7) Science students (Medical and Non-Medical) will be more decided with regard to their career choices than the Humanities (Arts and Commerce) students.

8) i) There exists positive and significant relationship between dependent variable of Career decision-making and Independent variables of Self esteem, Locus of control and Academic achievement in case of Total sample, Boys and Girls, Decided and Tentative groups and four sub groups i.e. Arts, Commerce, Medical and Non-Medical.

ii) There exists negative relationship between the criterion variable of Career decision-making and independent variable of Career choice anxiety in case of Total sample, Boys and Girls, Decided and Tentative groups and four sub groups i.e. Arts, Commerce, Medical and Non-Medical.

9) Locus of control, Self esteem, Career choice anxiety and Academic achievement contribute significantly towards the prediction of Career decision-making both independently as well as conjointly in case of Total sample, Boys and Girls, Decided and Tentative groups.