CHAPTER - II

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2.1 INTRODUCTION

The increased complexity of the social and technological change has brought about a different methodological approach for adolescents to meet the new environment, they will face in the future.

More or less serious problems connected with their school experiences, social relationships, economic instability, inadequate recreational facilities, un-preparedness for vocational activities and lack of understanding of adolescent psychology on the part of parents and teachers are exposing the adolescents towards maladjustment.

Furthermore, when trying to integrate modern ideas with traditional ones many problems will arise. Both sides have great pressure on the adolescent which then create new needs. Some of the adolescents are able to make their transition without understrains, while others remain in a state of confusion. This is an area where adolescents need greatest assistance. At the same time it is an imperative stage to look back into the past to bring forward what is likely to be done to the adolescents and try to incorporate it with the existing situation. Moreover, as a developmental process and a period, it has been defined differently, each definition reflecting a different outlook. Thus, in order to get a clear picture it is better to probe into different definitions and put them into some order.
2.2 CONCEPT OF ADOLESCENT

The term ‘adolescence’ comes from the Greek word ‘adolescents’ which means ‘to grow’ or to grow to maturity. In the Webster’s third New International Dictionary (1979), the term adolescence, puberty, pubescence and youth are frequently used interchangeably to refer to the period between childhood and maturity.

According to Manning (1971) Adolescent is a time of tremendous change and transition between childhood and adulthood. It has been regarded by psychologists, as a crucial period in life of an individual.

Longman Dictionary of psychology and psychiatry (1984) described adolescence, the period of transition from childhood dependence and immaturity to the greater maturity and independence of adulthood.

Bassand Ball (1960) considered that adolescence is the transition stage from childhood to maturity, during which new patterns of behavior have to develop to meet the demands both of the larger and more diversified life of his peers and of the adult society which he begins to enter.

McCandless (1970) stated that, “Adolescence is both a time of drastic change and a part of the continuous stream of human development. It is a bridge period, a time of shifting from one stage to another.

Stone and Church (1968) treated adolescence as a state of mind or a mode of existence, usually identified with the period between puberty and full social maturity.
Papalia and Olde (1978) also advocated adolescence as the span of years between childhood and adulthood. Its beginning is heralded by pubescence but its end is hard to mark.

Brocke and Peterson (1984) beginning puberty is a major developmental milestone of adolescence considered by many as the developmental change that signals one’s transition into adolescents from childhood.

According to Jersild (1957) adolescence is the span of years during which boys and girls move from childhood to adulthood mentally, emotionally, socially and physically.

Hall (1904) thought of the period of adolescence as the critical stage of transition between the primitive and civilized person.

Konopka (1973) considered the period from 12 to 15 years as early adolescence, 15 to 18 years, as middle and 18 to 22 years, as late adolescence.

Hurlock (1955) divided the period of adolescence as follows:

- Pre-adolescence: 10 - 12 years age
- Early-adolescence: 13 - 16 years age
- Late-adolescence: 17 - 22 years age

According to Davis (1985) adolescence is the development period between childhood and adulthood, spans the years from 12 to the early 20’s. It is a complex period of human growth that leaves many parents,
teachers and counsellors perplexed and startled by rapid changes in mood and behavior.

Chauhan (1987) stated that chronologically adolescence comes roughly between the years from 12 to the early 20s. The onset of adolescence varies from culture to culture depending on the socio-economic conditions of the country.

An adolescent has been identified and defined to be an individual falling into the age range of 15-25 years, sometimes identified by such words as teenager, youth or even a person, yet to take up any job or family responsibility seriously (Mohan, 1976).

Freud (1953) considered development as proceeding sequentially through five stages oral, anal, phallic, latent and genital the genital stage marks the advent of puberty and entrance into adolescence.

According to Jesselyn (1976) adolescence is a stage of emotional growth. It cannot be avoided if adulthood is to be attained. It is a period in which many conflicts dormant since childhood return to be solved. It is a period of new problem created by the physical changes that have occurred in the individual.

Hurlock (1968) viewed adolescence as a period which extends from sexual maturity until the age when independence from adult authority is legally answered.

Physically, adolescence can be defined as that span of a young person’s life between the obvious set of puberty and the completion of bone-growth (Konopka, 1973) Medically, period of adolescence refers to the
on set of growth and harmonial changes leading to sexual maturity (Scarbourough, 1981).

Further more, the following major elements were considered as a signal for the termination of adolescence.

Biologically, achieving physiological maturity.

Traditionally, when informal cutoms lift the last restrictions on adult privileges.

Sociologically, the termination of status discontinuing.

Economically, becoming self supporting and maintaining a balance between production and consumption.

Legally, reaching the age limit specified by law.

Educationally, adolescence is the time period spent mainly in high school and partly in college.

Psychologically, adolescence follows a set of physical, social emotional or cognitive changes as well as changes relating to personality.

Konopka (1973) considered the following elements :-

1. Experience of physical sexual maturity.
2. Experience of with drawl of and from adult benevolent protection.
3. Consciousness of self in interaction.
4. Re-evaluation of values.
5. A deep sense of lone lines and a high degree of psychological vulnerability.
6. Enormous mood swings.

Hall (1904), Freud (1946) and Sulivan (1953) were of the opinion that period of adolescence as a particularly stormy and tempestuous in contrast to the supposedly quiescent period of late child hood that proceeds it.
Further, Freud (1946) asserts that the budding youth has a second chance during the adolescence to undo the effects of his previous personality and to restructure his character.

According to Erikson (1963) the adolescence process is complete only when the individual has subordinated his child hood identifications to a new kind of identifications, achieved in absorbing sociability and in competitive apprenticeship with and among his age mates.

Adelson and O’Neil (1966) considered that adolescence is a reasonably calm and the crisis associated with it is more on surface than in depth.

It is evident from research work that the problem faced by high and senior high school level adolescents differ not so much in type, only the emphasis the adolescent places on problem changes as the individual grows older (Reddy, 1966; Hurlock, 1967). During the early adolescent years the problems center around physical appearance; health and physical development school work; relationships with members of their families, teachers and peers of both sexes; The choice of vocation; money, personal adjustment, morals and sex (Amatora, 1957; ackson and Getzels, 1960; Meissner, 1961; Reddy, 1966; Sorojini 1971, Sidana, 1977, Goswami, 1980; Gupta, 1981 and Sharma 1988).

Research has indicated that important changes in personality and cognition occur during adolescence, with early adolescence being the most crucial time in this regard (Pravent; Jones and Hampton, 1979) Kegan (1971) goes a step further when he calls early adolescence as the “psychological stage”. Although early adolescent period may be one of the
eventful period as far as the development is concerned, it certainly has not been heavily researched (Kegon, 1971). It is decisive period in moving from eternally imposed conduct pattern to an internally controlled set of personal values and moral standards (Douvan and Adelson, 1966).

Spiegal (1961) considered disturbances in the sense of self to exist in nearly all adolescents, except for those in whom a severely fixed obsessive and compulsive character structure resists the loosening effect of adolescent’s.

Nixon (1966) was of the opinion that all late adolescent’s experience crisis in relation to their attitudes toward independence and sexuality their feelings toward parent’s siblings and themselves and their definitions of their interest and motivations.

Erikson’s (1968) concept of identify crises refers to the dynamics of the search for an inner continuity that will match the external social conditions. He describes acute identity diffusion as a serious clinical syndrome that shares many features with borderline schizophrenia.

Onyehapul (1982) explores the nature of adolescence and suggests that this period is marked with most potent crisis of attaining a sense of ego-identity, while over coming identity diffusion. Identity crises are nothing more than manifestations of basic changes in identity and should not be regarded as necessarily negative phenomenon. The individual must emerge from such crises stronger and enriched by experience (Collado and Franco, 1983) psychologically healthy human being is one who has developed a firm sense of identity. Such a person places himself in what Erikson called ego space time.
Erikson’s theory (1963) portrays adolescence as a pivotal period in personality development and provided possible solution to the dilemma of storm and stress. He has given eight developmental stages of life cycle with eight personality components of each stage. The eight stages with their corresponding components are as follows:

<table>
<thead>
<tr>
<th>Stage</th>
<th>Age</th>
<th>Personality</th>
<th>Components</th>
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</thead>
<tbody>
<tr>
<td>1st</td>
<td>Birth to 1 year</td>
<td>Trust</td>
<td>Mistrust</td>
</tr>
<tr>
<td>2nd</td>
<td>2 to 3 years</td>
<td>Autonomy</td>
<td>Shame and doubt</td>
</tr>
<tr>
<td>3rd</td>
<td>4 to 5 years</td>
<td>Initiative</td>
<td>Guilt</td>
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<tr>
<td>4th</td>
<td>6 to 11 years</td>
<td>Industry</td>
<td>Inferiority</td>
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<tr>
<td>5th</td>
<td>12 to 18 years</td>
<td>Identity</td>
<td>Role diffusion</td>
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<tr>
<td>6th</td>
<td>19 to 25 years</td>
<td>Intimacy</td>
<td>Isolation</td>
</tr>
<tr>
<td>7th</td>
<td>26 to 65 years</td>
<td>Generality</td>
<td>Stagnation</td>
</tr>
<tr>
<td>8th</td>
<td>65 years onward</td>
<td>Ego Integrity</td>
<td>Despair</td>
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<td></td>
<td>till death</td>
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However, the problems that adolescents face are multidimensional and the solution to many of them all too often lies beyond the reach of the adolescents. Yet as to Rogers (1981) concluded that what ever the relative merits of the various concepts of adolescence, all must be taken into account, since all exist in modern society. We must alert ourselves to the current frame of reference whenever adolescence is being discussed.

### 2.3 CONCEPT OF INTELLIGENCE

The psychologist employs the term intelligence as a theoretical construct with certain descriptive and predictive properties. Intelligence in this setting is not unchanging concept since it can be altered in definition to suit the need of the scientist.
They had little success in reaching a definition in verbal terms that is much more precise and satisfactory than the common sense understanding of the term held by the layman. These are in large part supplementary rather than contradictory emphasis, all are pointing at a different aspect of intelligent behavior.

However, the definitions and measurements of intelligence are so elusive that it cannot be measured directly but mainly through overt manifestations of the functioning of the brain. Intelligence tests are seen as moderately good predictors to diagnose strengths and weaknesses of individual pupils in order to establish the most effective learning environment.

Thus, the word ‘intelligence’ is said to have been first used by Cicero (106-43 B.C.), the Roman statesman, and it appeared to be the literal translation for Aristotle’s term ‘diagnoses’. According to Aristotle’s thinking, intelligence was the abstract quality common to all intellectual processes, for example, sensation, perception, memory, imagination, reasoning, etc. (Bedi, 1974).

Plato (428-348B.C.) was the first to begin the discussion on intelligence with his tripartite division of the “nous”, which covered the concept of soul, mind, spirit, and thinking as well as that of mental ability, everyone, he said, has an appetitive part to one or impulsive side to ones nature. In addition, there is an element of thought or reasoning and there is another element between them, which takes order from the reasoning side and curbs the excesses of impulsive side. Plato also offered some further remarks on the balance of environment and heredity in personal abilities that are strikingly modern.
In the “Republic”, Plato makes it quite plain that he thinks human differences stem principally from inheritance. Plato also recognized the modern concept of “Regression towards the mean” in relation to intelligence in this book.

The theory of intelligence took another step forward with Aristotle’s (384-322 B.C.) viewpoint, who extracted cognition from perception. His idea of mental functions separated the nutritive, the perceptive, the motive, and the intelligence. According to him, the intelligence orders outside objects, just as the senses perceive them. Intelligence, therefore is passive and unlike the other parts of mind, is not shared by plants or animals.

A different view of human intellectual abilities was taken by Baron (1748) in his work “Del Espirit deslols”. He suggested that the physical environment was of great importance in determining the characteristics of people and that these differences were due to bodily differences. Heat, he says expands the end of the nerve fiber making people from hot climate, sensitive, but lazy and timid, and those from cold climate are tough and active.

Hebb (1949) distinguished between what he termed intelligence ‘A’ which is innate potential and intelligence ‘B’ which is the functioning of a brain in which development has gone on. He argued that intelligence ‘A’ cannot be measured directly. Its evidence comes through intelligence ‘B’.

Darwin (1859) publishes “origin of species, arguing in part that intelligence is heritable.

Vernon, (1969) summarized the concept of intelligence as basically involving (i) genetic capacity that intelligence is part of genetic equipment (ii) observed behavior that intelligence results from both hereditary and
environmental factors and (iii) a test score that intelligence is the construct measured by an intelligence test.

Despite Wichsler's (1958) efforts have continued to link intelligence to genetic factors (Jenson, 1979, 1981, 1994) stating intelligence either in terms of general factors or multiple abilities (Cattel, 1977, Guilford, 1967, 1979, Horn 1970, 1972, 1976, 1979, Horn and Cattell, 1966) in the light of these a corresponding efforts to apply those new concepts to intelligence emerge.

Spearman (1863-1945) believed that intelligence was a function of general ability (the g factor) plus specific abilities (s factor) the g factor represents general intelligence, believed to be inherited factor, which activates the factors, Spearman (1927) believed that performance of a mental task determined by both the g factor and the person’s specific ability for that kind of task.

Stern (1912) proposes the intelligence quotient mental age divided by chronological age Stern (1914) further asserts that intelligence is a general capacity of an individual consciously to adjust his thinking to new requirement. It is general mental adaptability to new problems and conditions of life.

Peterson (1925) contends that intelligence is a mechanical means for adjustment and control.

Wechsler (1958) believed that intelligence was the total or aggregate capacity of an individual to act purposefully, to think rationally and to deal effectively with his environment. According to him intelligence is not a single general ability. It is the total capacity.
Wagnon (1937) further asserts that, intelligence is the capacity to learn and adjust to relatively new and changing conditions.

Stoddard (1943) presents a comprehensive description. According to him, Intelligence is the ability to undertake activities that are characterized by (i) difficulty (ii) complexity (iii) abstraction (iv) economy (v) adaptiveness to a goal (vi) social value and (vii) the emergence of originals, and to maintain such activities under conditions that demand a consideration of energy and resistance to emotional forces.

Burt (1949) put forward five level Hierarchical model and of intellect, namely (i) general factors common to all traits (ii) group factors common to some of the traits (iii) specific factors’ limited to each trait whenever it is measured (iv) error factors, limited to each trait on each particular occasion whenever it is measured. He proposed a five-level hierarchical model involving the hierarchical levels at (i) human mind, (ii) relational level or general factor (iii) associations (iv) perceptions and (v) sensations.

According to group factor structure of intelligence, intelligence neither consists two factors as proposed by Spearman nor multi-factor as developed by Thorndike (1962). The six primary factors emerged are as follows :-

1. **Number factor (N)** - Ability to numerical calculations rapidly and accurately.
2. **Verbal factor (V)** - Found in test involving verbal comprehension.
3. **Space relations (S)** - Involved in any task in which the subject manipulates an object imaginary in space.
4. **Memory (M)** - Involving the abilities to memorize quickly.
5. **Reasoning (R)** - Found in tasks that require the subject to discover a rule of principle.
Word Fluency (W) - Involved whenever the subject is asked to think of isolated words at a rapid rate.

According to Piaget (1932) intelligence is adaptation. He advocates that human mind and nervous systems are tools which man uses to adopt to the world around him. This adaptation involves a delicate balance between two processes which Piaget calls assimilation and accommodation.

Freeman (1962) defined intelligence in three ways i.e. (i) intelligence is the adaptation or adjustment of the individual to the total environment (ii) intelligence is the ability to learn (iii) intelligence is the ability to learn abstract thinking.

Garret (1964) says that, intelligence includes abilities demanded in solution and use of symbols like words, numbers, diagrams, equations and formulae which represent ideas and relationship.

Binet (1905) developed the first intelligence test involving analogies, patterns and reasoning skills.

Thorndike (1920) contends that there are three main types of intelligence, viz., (i) intelligence forwards and abstract ideas, (ii) mother intelligence or skills with use of hands and (iii) social intelligence or ability to get on well with others. It has also been termed as behavioral intelligence by some others.

Gardener (1943) proposed a theory of multiple intelligence that identifies seven separate kinds of intelligence linguistic (verbal), logical mathematical spatial, musical, bodily or kinesthetic, knowledge of self (interpersonal), and knowledge of others (interpersonal) interestingly, Gardener noted that some people excelled in one of these abilities but scored average on the remaining abilities.
Bloom (1956) contends that cognitive domain includes all those objectives which deal with recall or recognition of knowledge and development of intellectual abilities and skills.

According to Good's Dictionary (1959) intelligence is capacity to carry an abstract thinking.

Garry (1965), asserted that intelligence is the innate ability to solve problems, the innate ability is that which is present in a person from birth and not acquired through self-study or as a result of classroom instructions.

Huarte (1575) defines intelligence as the ability to learn, exercise judgement and imaginative.

Binet and Simon (1916) defines intelligence as a capacity to make rational judgement in situations regarding a minimum formal schooling.

Boring (1923) suggested that intelligence is what intelligence tests measure.

**Thurston's specific abilities viewpoint.**

The early work of Thurstone (1938) was an effort to bridge the gap between the general ability (g) notion of Binet and the observation of others that people possess unique constellations of abilities and are not uniformly competent. He eventually identified seven mental abilities underlying intellectual tasks, verbal comprehension, word fluency, memory, reasoning, ability to visualize spatial relationships numerical ability and perceptual speed. But tests of these “separate” factors showed that ability in one area was correlated with ability in other areas. Even though people usually
performed better on same tests than on others, in general those who obtained high scores on the verbal test tended to do well on tests of spatial relations, numerical ability. While low scores on verbal test tended to go along with low scores on other tests also. Despite Thurstone’s efforts to the contrary the test developed to measure primary mental abilities still seemed to measure a general factor (Anastasi, 1968). Neither ‘g’ nor ‘IQ’ were invalidated by Thurstone’s work. Infact, general intelligence emerged from multiple factor analysis as a single second order factor based on the intercorrelations among primary factors.

Cattell: Fluid and crystallized intelligence.

Cattell (1963) found not one but two kinds of “g” one provides the brain power for routine learned abilities such as vocabulary and the other for less teachable and more complex abilities like abstract reasoning. He also found that the two correlated positively with each other. Fluid general ability or ‘gf’ is a general relation perceiving capacity independent of sensory area. It is not dependent on formal education and is sometimes considered the basic ability to solve new problems without formal training. Development of fluid abilities seems closely allied to the development of brain and nervous system and is influenced by experiences that directly affect this system such as early nutrition and disease (Horn and Donaldson, 1980). Crystallized general ability or (ge) refers to those mental abilities valued by one’s culture and not affected by aging such as reading, comprehension, general knowledge, vocabulary, balancing a cheque book, taking tests (Horn and Donaldson, 1980). It is a precipitate of experience, consisting of acquired knowledge and developed intellectual skills. This concept helped in understanding the changes in intelligence that take place with age and more or less discounted the earlier assumption that intelligence increased throughout childhood, peaked in adolescence or early adulthood and declined from then onward.
Infact it was found that with advancing age, crystallized abilities do not decrease and may in fact improve, provided the individual stages intellectually active, whereas fluid abilities may deteriorate in later life. Also, further research work (Jensen, 1969) helped to establish that crystallized intelligence can have very high hereditability and therefore, would contain little cultural variance if the opportunities for learning and acculturation were highly similar for all individuals throughout the population.

Guilford: Structure of intellect model.

Guilford (1967) discounted the concept of a unitary general intellectual ability or of a few primary mental abilities in favor of a multiple factor theory of intelligence. He has attempted to identify the nature of specific intellectual abilities by generating models of intelligence that postulate numerous intellectual skills. Through the technique of factor analysis, Guilford (1967) and his students have identified 120 of the postulated 150 highly specialized mental abilities which are conceptualized to constitute intelligence, some of which are independent of others, while some are correlated with others. He organized these discrete abilities into a kind of three dimensional structure, in which all are of equal merit and there is no over riding unseen ‘pure’ intelligence. These abilities result from an interaction among the types of stimuli in the environment (content), the types of mental processes used to respond to the stimuli (operations) and the resulting response or the result of an operation upon the content (product). Therefore, the structure of intellect five operations cognition, memory, divergent production, convergent production, evaluation; five contents (visual, auditory, symbolic, semantic, behavioral); and six products (units, classes relations, systems, transformations, implications). An ability, thus, is defined as a union of an operation, a content and a product and presumably each individual varies in competence in each of the 150 discrete abilities performing an intellectual
task is essentially performing a mental operation with some specific content to achieve a product for example, if a student is asked to give a title to a clever story, it requires a divergent production (there could be several possible answers) of semantic transformation. Likewise, listing the next number in the sequence 5, 10, 15 requires a convergent production with symbolic content (numbers) to achieve a relationship product (each number is a multiple of 5).

Vernon: Hierarchically - Organized abilities

Vernon (1965) gave a hierarchical structure of factors or human abilities; a general factor, two major group factors (verbal education aptitude and special mechanical aptitude), seven minor group factors and an intermediate number of possible but unidentified specific factors. Vernon’s hierarchy is hypothetical rather than a reality just as in Guilford’s S01 model. Psychologists working in the field do not agree as to the precise nature of the hierarchy. Models such as Vernon’s make an attempt to specify the relationships between specific factors and broad abilities because like Cattell (1963), he also believes that a synthesis must be reached between the ‘g’ proponents and the factor theorists. They believe that ‘g’ is a useful construct and that people possess unique constellations of abilities, so the relationship between ‘g’ and ‘s’ (specific abilities) should be clearly delineated.

Piaget: A biological approach/Developmental viewpoint.

Piaget (1963, 1965) asserted intelligence as the ability to adopt mentally to new situations or to increasingly complex environment. He views the development of intelligence as part of the more general process of biological development, passing through age related cognitive stages (sensorimotor 0-2 years; pre-operational 2-7 years; concrete operational 7-11
years and formal operational 11+ years) with a scope of wide variations in
different cultures or environments.

Although development is a continuous process of structural change
each stage is characterized by the formal logical structure most useful for
describing the child’s cognitive functioning during that time span. Each stage
is successive, hierarchical and cumulative. Thus the rate of cognitive
development is based on an interaction between the child’s maturational
state and the nature of the environment. The environment will have very
little effect on the child, unless the child is biologically ready to respond to
the environment.

Piaget has ignored practically the entire business of g, s, IQ and
testing and instead has studied intelligence as a living, growing thing and has
described its functions in the various stages of the mind’s development. His
notion of intelligence is very different from the view of intelligence as a
collection of specific skills and abilities. For him, acts of intelligence consist
of ‘adaptation to new situations’ and there are two aspects in any act of
intelligence, the comprehension of the situation and the invention of a
solution based on how one comprehends the situation. In other words,
comprehension of reality precedes and largely determines how one adopts to
it. A most important part of intelligence, therefore, is the ability to read
reality, structure it and get meaning out of what is observable. Piaget views
intelligence as being an inventive capacity since solutions, even wrong ones,
are invention of the intellect. His concept of intelligence as a system of
logical structures has a far more obvious relationship to problem solving than
the traditional view of intelligence. Piaget would allow learners freedom to
assimilate and accommodate and to develop schemes at their own pace and
would not want the teachers to speed up the cognitive development of the
child. Rather, he holds that the teacher’s function is to insure thorough
integration of development within each stage.
Bruner: An environmental approach

Bruner (1966) suggested that intellectual development runs the course of those stages of cognitive development, termed systems of representation by him. To put it simply, he explains three ways of knowing something. Through doing it, through sensing it and through a symbolic means such as language. The three models of interacting with the environment emerge quite early in life in the order given—inactive, ikonie and symbolic and become interrelated throughout life. These models serve as the means of representing experiences internally as also of operating on one’s environment - acting on one’s environment (inactive representation) sensing the environment (ikonie representation) and interacting with the environment through language (symbolic representation).

Gagne (1968) has proposed a theory of mental development based on the notion of cumulative learning, in which various skills form a transfer hierarchy, with some skills being more basic than others in the sense of providing positive transfer to the acquisition of more complex skills in the hierarchy. The model thus views mental ability at any given cross section in time as a product of cumulative learning. “Intellectual development may be conceived as the building of increasingly complex and interacting structures of learning capabilities. The entities which are learned build upon each other in patterns of great complexity and thus generate an ever-increasing intellectual competence........”(Gagne, 1968), holds that any set of related learning activities which cumulate into successively higher levels of achievement can be analyzed into their constituent and prerequisite intellectual skills. He implies an indefinite but a very large number of specific intellectual abilities or skills and holds that one’s intelligence is composed of the skills he has mastered. Since Gagne’s learning model makes explicit the processes that characterize intelligence, it offers the possibility that these
may changed through behavioral techniques to the advantage of many children whose chance of succeeding in school would ordinarily be poor (Jensen, 1973). Critics point out that with respect to the acquisition of mathematics Gagne’s formulations may be valid but his model is not adequate as a general theory of mental development.

**Sternberg: Components view**

A new way of looking at intelligence has emerged in recent years on the basis of research on cognitive development and information processing. It describes the mental processes that are involved in intelligent performance (i.e. the processes that people use to solve problems in intelligence tests and in life) in terms of components. A component is an elementary information process that operates an internal - representations of objects or symbols (Sternberg 1985). Components are classified by the functions they serve (metacomponents perform higher order planning, strategy selection and monitoring; performance components execute the strategies selected; and knowledge acquisition components serve to gain new knowledge and by how general they are specific components are necessary for one kind of task but not for others. On the other hand general components may be necessary in almost every cognitive task. Metacomponents are an example of general components and these help to explain the persistent correlations among all types of mental tests. People who are effective in selecting good problem solving strategies or in monitoring progress and moving to a new approach when the first one fails are more likely to be successful on all types of tests. Thus metacomponents may be the modern day version of spear man’s ‘g’ (Woolfolk, 1987). Although highly controversial, components view of intelligence does suggest a way to relate mental abilities to one another and to the thinking processes underlying these abilities.
2.4 CONCEPT OF LOCUS OF CONTROL

According to the International dictionary of education (1977), locus of control is a personality construct referring to an individual’s perception of the place of events as determined internally by his/her own behavior against luck, fate or external forces. Petterson (1987), defined internal locus of control as the perception that an individual has of being able to influence the occurrence of reinforcement around him by his behavior. In the same way, the external locus of control expresses the perception of an individual who believes that influencing reinforcement around him is not within his control. On the other hand, it is the perception of change, the possibility that a reinforcement might occur.

Graybill (1977) has shown that personal control is not synonymous with internal control. A person may believe in a relationship contingency and yet, be lacking in personal control.

Weiner (1979) separated locus of control into locus and control of which were considered as two independent attributional dimensions. Locus or locus-of-causality refers to whether the cause of reinforcement is internal or external and control of controllability refers to whether the cause is controllable or un-controllable.

Initial empirical investigation of this “belief in personal control” has stemmed primarily from Rotter’s (1966) construct of “perceived locus-of-control.” This concept grew out of Rotter’s Social Learning theory (1954).

According Ducette and Wolk (1972) an internal person perceives that he is in control of his fate and that effort and reward will be correlated. But an external person perceives that powerful others or the systems determine how well he can do and that rewards are distributed by such powerful others in a random fashion.
The imperative impulse for interest in locus-of-control derived from the creation of an assessment device. The first such device was a Likert type scale developed by Phares (1958). This was followed by Jame’s (1950) revision of the Phares scale. Others measures followed shortly there after, example, scales by Dean (1961) Battle and Rotter (1963), Lefcourt (1966), Rotter (1966) etc.

Rotters (1975) stated that when a reinforcement is perceived by the subject as not being contingent on his action, then it is perceived as a result of chance, luck, fate, as under the control of powerful others are as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, it is labeled as a belief in external control. If the person perceives that the event is contingent upon his behavior or his own relatively permanent characteristics, it is labeled as belief in internal control.

Thus, the three basic constructs of social learning theory by Rotter (1966) are:-

(i) Behavior potential
(ii) Expectancy
(iii) Reinforcement value. There has been wide interpretation of Rotter’s (1966) locus of control theory. Some authors interpret it in terms of casual attribution. Mostly, since the research of Weiner and Kukla, 1970 : Weiner, Nierenberg and Goldestein, (1976) locus of control has often been considered an attribution process to a cause labeled internal or external in relation to the individual.
Rotter’s (1966) definition, stated that 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 behavioral outcome contingency”. In the same way, it also seems reasonable to think that internal control is manifest 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 causality to external forces. This second formulation is an interpretation in terms of “casual attribution” by reference to the attribution theory described mainly by Heider (1958) and Kelley (1967) Solomon and Oberlander (1974) asserts that internals typically perceive themselves to be effective, assertive and independent. They spend more time in intellectual activities and academic pursuits. Acquire more information and greater problem solving skills, evidencing high social interest and highest moral judgement capacity, more satisfied with their studies and personal lives (Crandall, Katkovsty and Crandall, 1965; Rotter 1966 : Davis and Phares, 1967 : Hjella, 1979; Connolly and Mc Carrey, 1979; Bhagat and Chessie, 1980).

Quite a number of research asserted that locus of control is a psychological construct in which two types of persons come. Firstly, the internally oriented who attribute the responsibility of what happens to them on themselves and the second ones are the externally oriented who contrary to the internals fix the responsibility of the events in their life on others and external force like chance and luck etc.

Not every one reacts to noise pollution or a catastrophic illness with the same sense of powerlessness. Then, too, some people march through life reacting to nearly every situation as if they persistently strive to grab those some situations by the toil and twist them to their own purpose.
It is as if certain people feel that the outcomes of their efforts are controlled by factors or events external to themselves while others are convinced that control is an internal matter which is related to their own efforts or attributes. This is the external locus-of-control or reinforcement notion which first emerged from Rotter’s social learning theory in the mid-1950’s (Phares 1984).

In psychology it has received the most attention in theories of self-efficacy (Bandura, 1977). In reaction to theories that focused on locus of control and non-contingency, Bandura pointed out that even if individuals believe that outcomes can be influenced by behaviors or responses, they will not attempt to exert control unless they also believe that they themselves are capable of producing the requisite responses. The distinction between believe about means-ends connections and agent-means connections can be found in theories of learned helplessness (Abramson et al. 1978).


With regard to control, for example, Bandura’s approach (1977), Bazerman’s (1982), Weisz and Stipek, (1982) Wong and Spoule, (1984). Clearly concluded that, internal-external control in Rotter’s (1966) theory refers to the perceived behavioral outcome contingency while in attribution theory, internal-external refers to whether the causes are inside or outside of an individual.
As clearly suggested by Rotter (1966), the construct of locus of control refers to a generalized expectancy individuals have concerning the extent to which they themselves play a causative role in specified life events. Internals tend to believe that a given outcome (success of failure) depends on their behavior, skills and resources; externals believe that control reside outside of themselves in the form of change or powerful others.

Rotter (1966) further stated that internal-external control of reinforcement as when a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his actions, then it is typically perceived as the result of luck, chance, fate as under the control of powerful others or as unpredictable because of the complexity of the forces surrounding him. We have labeled this a belief in external control. If the person perceives that the event is contingent upon his own behavior his own relative permanent characteristics, we have termed this a belief in internal control.

Since the past time a number of terms were entertained in the literature. For example, Bandura (1977) speaks of “self-efficacy.” Smith (1968) and white’s (1959) of “competence”, Franks and Morolla (1976) of “inner and outer self-esteem, “Brim (1974) and Gurin, Lao, and Beattle (1969) of “personal control”, Abramson, Seligman, and Teasdale (1978) of “Learned helplessness”, Decharms (1968) of “personal causation”, Coleman et al (1966) of “control over destiny”. Although these terms reflect some what different meaning, their common core is aptly expressed in Brim’s (1974) definition of personal control as a “belief system about causality : whether outcomes are a consequence of one’s own behavior, or tend to occur independently of one’s own behavior from a host of experiences.

If we refer to the “ideal” definition formulated by Rotter, Seamen and Liverant (1962) when they consider the construction of I-E scale,“ .......
internal control refers to the perception of positive and or negative events as being a consequence of one’s own actions and there by under personal control where as external control refers to the perception of positive and or negative events as being unrelated to one’s own behavior in certain situations and therefore, beyond personal control.” This is a position which seems to have had the clear support of several researchers on locus-of-control. Since early researchers the term characterize an internal or external locus of control are not identical, as far as internal locus of control is concerned, such expressions are found as “views the outcome of events as the consequences of his own control (Crom-well, 1967), “a general expectancy that people can control events (Coan, Fair child and Dabyns, 1973), “possess power ...... over what happens to him” (Mischel, Zeiss and Zeirs, 1974), “are usually able to influence the outcome of situations (Crandall, Katkovsky and Crandall, 1965),”beliefs about their ability to influence their environment and exert control over it (Gemiel and Herislet, 1972), “believe they are skilled in manipulating the environment to get what they want (Colline, Martin, Asmore and Rose, 1973), “the subjects expectancy that his own behavior would change the probability that reinforcement might occur” (Stephen and Delys, 1973), “expectation that one’s actions generally make a difference to increase the subjective probability that any desired outcome can be secured by a particular behavior (Abrumawity, 1973).

On the other hand external locus of Control expressions are also quite significant: “they feel that they have little control over their environment”. (Tessers and Grossman, 1969) “feel their destinies are beyond their own control” (Levenson, 1975), as perceived lack of control an awareness that one’s efforts to cope with the world are not effective (Phares, 1976) “lacks power over what happens to him (Lefcourt, 1966), “has no power over what
happens to him” (Mischel, et. al. 1974) “believes that the events in his life are for the most part beyond his influence” (Brodellng, 1975).

The internal-external locus of control has been operationalized many times by measurements of the casual attribution type. Examples of these are the Crandall intelligence achievement responsibility Questionnaire (Crandall, Katkovsky and Crandall, 1965) the Stephens-Delys reinforcement contingency interview (Stephens and Delys, 1973), the Stanford preschool Internal-external scale (Mischel, Zeiss and Zeiss, 1974), the internal, powerful others and chance scale (Levenson, 1974) the multidimensional - multi attributional causality scale (Lefcourt, Von Baryer, Ware and Cox, 1979). The Levenson scale has been analyzed by Petterson and Bradeleau with the locus of control construct we are dealing with a person as he views himself in conjunction with the things that befall him and the meaning that he makes of these interactions between his-self and his expectancies (Lefcourt 1976).

Further more, personality theorists have long been concerned with willingness of individuals to accept responsibility, of the consequence of behavior.

White’s (1969) constructs of “Competency” and “Effectiveness”. Adler’s concept of “striving for superiority as a basic motive, the ‘inner’ and ‘other’ directed man of Reisman (1950), Piaget’s notions of causality and other concepts such as self confidence ego, strength mastery etc. have been used to denote the degree to which man is able and believes himself to be capable of controlling the important events in his life-space” (Lefcourt 1966).

Due to various outcomes individuals change their expectancies for success and failure (Phares 1957). Internals are specially prone to react against covert or subtle influence (Ritchie and Phares, 1969 Gore and Rotter
1963) have related the I-E control dimension to factors of social action taking; Crown and Liverant (1963) to conformity behavior; Phares (1965) ability to persuade others and Rotter and Mulry, (1965) to decision time.

Lefcourt (1966) stated that “Locus of control is not to be regarded as an omnibus trait similar to ‘competence’ and intelligence which pertains to each and every fact of human endeavor, rather it can move fruitfully be defined as a circumscribed self-appraisal pertaining to the degree to which individuals view themselves as having some casual role indetermining specific events. Locus-of-control refers to the extent to which a person believes that he has control over the reinforcements the expectancies.

In short, the salient features of locus of control as a personality dimension has been widely discussed, and it has proved to be useful in the literature and therefore, the concept of locus-of-control has always been central and essential in the up bringing of the adolescents.

2.5 CONCEPT OF WELL-BEING

In general sense well-being is an on-going process, not a one time or intermittent prescription. It is predicted on persons active involvement in behavior and life style choice that will empower them to live full responsible, rewarding lives in an extremely complex world. The World Health Organization (1958) defined health as physical, mental and social well-being not merely the absence of disease or infirmity. Recently, spiritual well-being was added to this definition.

Maslow (1970) in his study of the characteristics of healthy persons, noted that growth, self-actualization, and the pursuit toward health must now be accepted as a wide spread and perhaps universal human tendency. Jung (1958) observed that the human psyche seeks integration, that there is an instinctual derive toward wholeness and health.
Brandburn (1969) asserted that the concept of well-being which is to do with people’s feelings about their every day life activities.

According to Archer and Gage (1987) wellness is the process and state of a quest for maximum human functioning that involves the body, mind and spirit.

As to Verma and Verma (1989) well being may be defined as the subjective feeling of contentment, happiness, satisfaction with life’s experiences and of one’s role in the world of work, sense of achievement, utility, belongingness and absence of distress dissatisfaction or, worry etc.

According to Wolman’s dictionary of Behavioral Science (1973), “mental health is a state of relatively good adjustment, feeling of well-being and actualization of one’s potentialities and capacities.

Longman’s Dictionary of psychology and psychiatry (1984) stated; “Mental health is a state of mind characterized by emotional well-being, relative freedom from anxiety and disabling symptoms, and a capacity to establish constructive relationship and cope with ordinary demands and stress of life.”

Travis (1978) described wellness as an attitude about one’s own process of self care, involving understanding of basic emotion and physical needs and the kind of habits and life-style necessary to meet those needs.

From this perspective, the primary purpose of promoting wellness is to reach high levels of physical, psychological, and emotional fitness to increase resistance to both minor illness and life-threatening disease.
Wig (1979) in the larger context mental health is referred to as the other name of quality of life. W.H.O (1981) stated, “The scope of mental heath programs has been enlarged to include not only psychiatry and neurology but also the psychosocial, biological and other aspects of health and development in general.”

The concept of well-being which is to do with people’s feelings about their every day life activities (e.g. Bradburn 1969), Warr and Woll, 1975 : Compbell 1976) such feelings may range from negative mental states (dissatisfaction, unhappiness, worry etc.) through to a more positive outlook which extends beyond the mere absence of dissatisfaction. As health is something beyond the mere absence illness into a state which has sometimes been identified as positive mental health (e.g. Johoda, 1958, Herzberg, 1966. The definition of positive mental health is especially difficult, since the concept is both multidimensional and value laden, but it is usually considered to include such features as favorable self evaluation, growth and learning from new experience, a realistic freedom from constraints and some degree of personal success involved pursuits (Peter Warr 1978).

View of positive mental health (Jahoda, 1958) or those which emphasis the goal of psychological development as self-actualization (Maslow, 1954; Goldstein, 1939) becoming “fully functioning person” (Rogers, 1961) or attaining the “Mature personality”.

Allport (1961) further described that a mature personality is synonymous with soundness of health as having six salient qualities.
1. Extension of human endeavor beyond immediate self interest.
2. Warm relating to others. Because of self- extension, the mature person is more capable of intimacy but also of respect and comparison.
3. Emotional security (self acceptance) this is reflected both in frustration, tolerance and intrust.

4. Realist perception skills, and assignments. This includes not only accurate judgement, but the capacity to lose one self in ones work.

5. Self-objectification i.e. insight and humor. To know one self and to laugh at one’s self requires mature detachment.

6. A unifying philosophy of life. The mature person has a sense of direction and purpose and a broad personal philosophy.

Kormer (1969), described mental health as a set of goals, intimately related to social values and may take on different forms indifferent societies.

Peck and Mitchel (1969), mental hygienists, felt that characteristics like rationality, autonomy, initiative, emotional maturity, self-realizing drive, self acceptance and respect for others must be included in a definition of mental health.

Dunn (1964) suggests that mental health or well-being must involve a balance among several components (Newrom Vscular, chemicals, mind, body) of the individual and the society in which he lives (Kaplan 1971), wrote, “Mental Health involves a continuous adaptation to changing circumstances, dynamic process where a living reacting being strives to achieve a balance between internal demands and the requirements of a changing environment.

Verma (1986) states “Mental health sustaining influences of culture are characterized by social roles and institutions which reduce uncertainties and channelize gratification’s and by customs and rituals, sanctions and prohibitions, symbolism and folk ways which serve culturally sanctioned defensive functions in the face of anxiety and guilt.
Wig and Nagpal (1971) have pointed out that there has been an increasing interest in the prevention of mental health problems by promoting psychosocial development in children and young persons.

Edlin and Golanty (1992) sum up the positive Wellnes into three categories.

1. Being free from symptoms of disease and pain as much as possible.
2. Being able to be active, able to do what you want and what you must at the appropriate time.
3. Being in good spirits most of the time. These characteristics indicate that health is not some thing that is suddenly achieved at a specific time, like getting a college degree. Rather health is an on-going process, indeed a way of life through which you develop and encourage every aspect of your body, mind, and feeling to interrelate harmoniously as much of the time as possible.

Johoda (1958) proposed six characteristics of the mentally healthy individual.

1. Attitudes towards the self; they are the accessibility of the self to consciousness; the correctness of the self concept; its relation to the sense of identity and the acceptance by the individual of his own self.
2. Growth, development and self-actualization; the extent the individual utilizes his abilities; his orientation toward the future and his investment in living.
3. Integration the extent to which the psychic forces are balanced, a unifying outlook on life and a resistance to stress.
4. Autonomy: The aim here is to ascertain whether the self reliant person is able to decide with relative ease and speed what suits his own needs best.
5. Perception of reality; a relative freedom from need distortion and the existence of empathy.

6. Environmental Mastery: under this heading is listed. Ability to love, work and play, adequacy in interpersonal relationships, adaptation and adjustment; and efficiency in problem solving.


**ABENT AXIS MODEL OF WELL-BEING**

The horizontal axis depicts the path of growth toward wholeness and holiness. The motivating force behind the movement toward wholeness is love-love for God, self, and others, leads persons to grow in awareness, which leads to understanding, transformation, greater integration, and wholeness.
The descending vertical axis, “Living with simple lack of awareness that leads to early warning signs and symptoms, which may progress to disease, further disintegration, and possibly premature death.

The motivating force that propels individuals on this downward path is fear. It is fear of facing the truth, of making changes, of letting go of old patterns and beliefs that makes it seem easier to coast along avoiding issues, than it is to choose abundant life with all of its honesty, freedom, and responsibility. Typically the fear is not even conscious, living in neutral is often simply being unaware.

Various researchers: Schroeder (1965) Bennett, (1973), Vandewiele, (1979). Sharma (1983), Brown, (1985), have explored the area and concluded that mental health and mental illness are dynamic concepts and to a large extent are culturally determined and are defined differently in different parts of the world.

By and large, Good health enables the society to lead productive life, physically, socially and economically. Ethiopia today, like other developing countries is in transitional stage. However, social development poses greater challenges. Health is the basic right of every individual. It is therefore, imperative to study the well-being factors and living conditions of adolescence under which they lead their life and the effect it produces on their wellness. Yet one’s better life is not guaranteed by some one else, it remains the individuals responsibility to make life meaningful and satisfying.