of differentiation, integration and generalization were common to them.
all. We thus define learning competence as the ability to differentiate
experience, whether internal or external, into separate elements, to in-
tegrate them in a new way thereby providing new information, new feelings,
new skills, and new perceptions which may or may not become expressed
immediately in some form of overt behavior, and to generalize the in-
tegration. Through these processes--differentiation, integration, and
generalization--potentiality is translated into actuality. Control over
them constitutes learning competence.

The processes of differentiation, integration and generalization are
neither random nor haphazard. In most instances they are directed by
intention or subjective aim, which determines what becomes abstracted,
and how the abstracted or differentiated elements are then integrated
and generalized. A teacher who understands these processes and who can
teach in a way that enables the child to gain conscious control over them
while assimilating information (content) about the world he lives in is
a master teacher. Becoming a master teacher thus depends on knowing the
coherent body of theory concerning development, curriculum, and pedagogy
and how to translate it into practice.

DEVELOPMENT AND THE THEORIES OF CURRICULUM AND PEDAGOGY

The Anisa theories of curriculum and pedagogy are derived from
theory of development which defines development as the process of trans-
lating potentiality into actuality and designates interaction with the

---

Bandura's modeling theory, Mowrer's two-factor learning theory, Newell and
Simons' information processing theory, various mediation theories, Piaget's
theory, the TOTE theory of Miller, Pribram and Galantar, Skinner's
work on conditioning and Harlow's theory of learning sets were among
the theories analyzed.

environment as the means by which the process is sustained.

The theory of curriculum defines curriculum as two interrelated sets
of educational goals and what children do, usually with the help of tea-
chers, to achieve those goals. One set of goals is process-oriented. It
rests on the classification of potentialities and the processes which
comprise them. The other set of goals is content-oriented. It rests
on the classification of environments and the organization of information
one's culture has accumulated about them, including the symbolic systems
used to convey that information. The two sets of goals, process and
content in orientation, are integrated by the over-riding purpose of
the model: actualization of the infinitude of potentialities of each
child in a way that creates further potentiality and fosters the emer-
gence of personal identity that is master of its environment and in
charge of its own destiny.

The theory of pedagogy defines teaching as arranging environments
and guiding the child's interaction with them to achieve the educational
goals. Thus, teaching insures the achievement of learning competence
(process) while assimilating information about the environments (content).
Process and content are fused as potentialities are actualized and
structured to form an identity--a self--with the characteristics of a
competent learner.

DEVELOPMENT AS VALUE FORMATION: IMPLICATIONS OF THE ANISA CURRICULUM THEORY AND TEACHING THEORY

Since 1950, considerable interest has been shown in formulating a
theory of curriculum and then defining the curriculum within that theo-

retical framework. Some educators, such as Taba (1962), Bruner (1966), and Beauchamp (1961), have made efforts to define the characteristics of curriculum theory which address basic issues rather than formulating an actual theory. Other curriculum specialists have drawn upon disciplines outside of education, such as systems analysis or decision theory, as a means of gaining a new perspective on curriculum development. While it is understandable that curriculum design can hardly be considered apart from curriculum theory, pressures for curriculum revision have been so great that curriculum designers could not wait for a theory. Many theorists, such as Elliot and Foshay (1963) and Tanner (1966), have suggested that it is premature for work on a comprehensive curriculum theory. We would agree that until a philosophy which discloses the nature of man's reality is adopted and a theory of development is derived from it, construction of a curriculum theory is impossible. Curriculum theory or a theory of teaching cannot be created in a vacuum.

Until we had established the philosophical base of the model and generated the developmental theory, it was not possible to identify the process and content aspects of the curriculum and clarify their relationship to teaching on the one hand and formation of values or character on the other. Following is a brief presentation on these aspects of the model.

Classification of Potentialities and The Process Curriculum--.

We have organized the potentialities or powers of man into five categories each of which is comprised of processes that underlie learning competence and are the means through which those potentialities become actualized. The categories of potentialities are: psycho-motor, per-

ceptual, cognitive, affective, and volitional. Specifications on the basic processes in each category have been developed. These specifications constitute the process curriculum and include definitions of each process, its relationship to learning competence, a translation of the process into an educational objective in the form of operational definitions, explanations of pertinent developmental aspects of the process, a presentation of several prototypical learning experiences needed to master it, and a statement concerning evaluation. There are no doubt an infinite number of processes in each category. Preliminary selection of processes for inclusion in the functional definition of the model was determined by the degree to which a given process appeared to engender effectance and the extent to which it constituted a fundamental prerequisite to other processes in the extension of potentiality.[1]

A. Psycho-motor Potentialities

Competence in this area refers to a capacity to coordinate, control, and direct the movement and position of the voluntary muscles. Starting at birth a child experiences a variety of motor activities which become organized and represented internally. George Early (1969) refers to this internal representation as the motor-base. As the child comes to know where and what his body powers are and how they work together, he attains a positional and functional awareness of the body as

---

[1] For example, discrimination of the color blue is a visual perceptual process, but achieving it alone gives rise to few other expressions of potentiality. However, discrimination of hue (all colors) is more fundamental and includes the above. Hence, the model contains a specification on hue discrimination.

as a reference point to which he relates the physical environment within a space-time context. Among the processes which comprise the motor-base are balance and posture with their subprocesses (laterality, verticality, and directionality). locomotion, manipulation, receipt, and propulsion. It is important to point out that psycho-motor potentialities are not actualized independently; rather, they are associated with perceptual, cognitive, affective, and volitional elements. However, any activity may have a major focus with a primary educational goal pertinent to a given process within a given category of potentiality. The formation of the motor-base and the achievement of psycho-motor competence comprise one of the most important developmental requirements of the infant and pre-schooler.

B. Perceptual Potentialities

Perceptual competence refers to the capacity to differentiate sensory information and then integrate that information into generalizable patterns which constitute interpretations of reality that enable the organism to make meaningful decisions and to act. Interpretation involves the organization of incoming stimuli in terms of past experience, present needs, aspirations or intentions which concern the future. It is through this process that the organism is kept in touch with reality and increases its effectance. Perceptual competence therefore rests upon the development of a perceptual-base, an internal structuring analogous to the motor-base, which functions as a set of rules generating and directing the basic processes of dif-

ferentiation, integration and generalization as they relate to perception. Processes in this area include those associated with vision, audition, olfaction (smell), gustation (taste), the cutaneous senses (touch, cold, hot) and the vestibular senses (equilibrium). Both vision and hearing have been broken down into a large number of processes, mastery of each one of which is an educational objective of the Model.

C. Cognitive Potentialities

Cognition is nearly always associated with some sensory input and it is frequently accompanied by muscular reactions, overt or covert, as well as emotions and some form of intentional behavior. While man has expended considerable effort over the years in an attempt to ascertain the elements which constitute thinking, a great deal of clarity is still needed. Like all other potentialities, thinking develops from interaction with the environment. Piaget says (1970, p. 104) "Actually in order to know objects, the subject must act upon them and therefore transform them: he must displace, connect, combine, take apart, and reassemble them." "Displace" and "take apart" are reflections of the general process of differentiation while "connect", "combine" and "reassemble" refer to the processes of integration and generalization. Through these differentiations and integrations internal structures develop which form the basis of cognitive competence. The cognitive processes which collectively comprise learning have been explored to some extent by Piaget, Bruner, and others. All of them are interrelated; some serve as developmental predecessors of others

which are composed of differentiative and integrative functions operating in different ways at different levels. Among the thinking processes which make up cognitive competence are such operations as analysis, synthesis, classification, seriation, number relations, deductive and inductive inference, interpolation, extrapolation, analogy, and conservation. We have tentatively identified some forty processes on which specifications are being developed.

D. Affective Potentialities

Attaining affective competence refers to the ability to organize one's emotions and feelings that energize the system and support in a positive manner the release of further potentiality. Emotions are associated with all other processes, though in varying degrees of intensity, and if they are not organized then the integrity of other areas will also be affected. How to feel about things is for the most part learned but rarely "taught" in any deliberate or conscious way. The organization of emotional life depends on being able to differentiate emotions, integrate them in reference to objects, events, or ideals and generalize them in ways that provide a basic stability in life. Teachers can assist children to achieve affective competence through the relationship they establish with them, consistency of feedback being one important element in its achievement. While a detailed theory about emotional development awaits further research and elaboration, we have identified a large number of proces.es, pertinent to gaining affective competence, which involves inhibiting, coping, managing, and facilitating emotions in terms of subjective aim or sense

of purpose. For example, coping with sadness or disappointment, managing anxiety, inhibiting a destructive impulse, or facilitating expressions of joy and gladness are all manifestations of affective competence.

E. Volitional Potentialities

Recent trends in psychology have begun to address the theoretical vacuum created by psychology's rejection of volition, or will, as a meaningful aspect of human functioning. This was for the most part a consequence of the mechanistic, reductionistic view of man as a creature whose behavior is determined by external stimuli rather than intention or some intrinsic determinant. And yet the vast number of changes that happen within the organism between stimulus and response provide the meaning that defines the relationship between the two. In other words, it is virtually impossible to make sense out of anyone's behavior without ascertaining his intention or purpose. From our philosophical basis we would assert that purpose in the life of man is an element of behavioral causality just as physical forces or genetic inheritance are also part of causality. Whitehead places great emphasis on the role of purpose as a vital element in the translation of potentiality into actuality. It is through purpose, or subjective aim, that concrescence is guided and directed; it provides criteria for making choices among a variety of possibilities and enables man to achieve control over his own destiny. If one does not take charge of his own destiny, someone else will. Thus, the role of subjective aim or purpose in concrescence is basic. In summary,

volitional competence is the capacity to form ultimate aims, differentiate them into operable goals and integrate them into a perpetual flow of intentional behavior directed towards the achievement of those goals.

Some of the processes which relate to the development of volitional competence are attention, goal setting, self-arousal, perseverance, effecting closure, and fantasizing a state of goal attainment. While a great deal of research is needed to understand the dynamics of volitional behavior, the above processes provide a rich, theoretical beginning that will enable educators to address that aspect of human functioning in educational planning.

Classification of Environments and the Content Curriculum--.

It is not only the individual person who can accumulate and store information about his experience and the world he lives in. Societies do, too. The collective memory of a society is its culture. As individuals, we do not have to start from scratch to discover things about the universe simply because vast numbers of millions before us have made countless discoveries and pass them on as part of the cultures to which they belonged. Information about the universe in which we live--our total environment--constitutes the content curriculum. In the Anisa model, it is organized around a classification of environments.

A. The Physical Environment

This environment includes everything except human beings. It can be broken down into three sub-categories: mineral, botanical, and animal.

B. The Human Environment

This environment includes all human beings one may come in contact with.

C. The Unknowns and/or Unknowables

Consciousness includes the ability to know when we don't know and when we are dealing with unknowns or the unknowable.

D. The Self

The self is a combination of the above three environments. The unknowns in a Self include the nature of the as yet unexpressed potentialities, the future, and the phenomenon of personal mortality.

Three interrelated symbol systems mediate the assimilation of the content curriculum, one for each of the first three environments listed: math for the physical environment, language (English, Navajo, Swahili) for the human environment, and the arts for the environment of unknowns. Since the Self is a combination of the other three, all three symbol systems are used to assimilate information about the Self.

The way disciplines have been organized traditionally does not deviate significantly from the organization of the Anisa content curriculum. For instance, the physical and biological sciences, math and technology constitute content organized around the first category.

Value Formation: Structuring the Fusion of Content with Process--.

As the child interacts with the environment, his potentialities (expressed through the processes) are actualized, i.e., they become powers. But these powers are not expressed in random fashion; they are structured. And as they are structured, factual information (content) is fused and structured with them to form the attitudes and

Actualizes these potentialities (processes)	As he interacts with these environments	Assimilating these bodies of information (content)	Utilizing these symbol systems	Thereby forming these values (content fused with process)	On which these higher-order competencies are based
Psycho-motor	Physical	Physical and biological sciences, and technology	Math	Material	Technological
Perceptual	Human	Social Sciences, history, human relations, communications, law, human rights	Language(s)	Social	Moral
Cognitive	Unknowns	Philosophy, religion, aesthetics and	The Arts (as expressions of ideals of structuring of the unknown)	Religious	Spiritual
Affective	Self	All of the above as they relate to Self (which is important for physical health and spiritual health	All of the above applied to the Self (symbolic of Self)	Personal identity or character (All of the above combined into the Self)	Personal effectance (All of the above combines into this aspect of the self)
Volitional					

values which constitute the character and personality of the human being. The structuring takes place in relationship to the various environments with which the child is interacting. Thus, different value systems reflecting these environments emerge.

Interaction with the physical environment releases potentialities (psycho-motor, perceptual, cognitive, affective and volitional) which when blended with content (information) concerning that environment, are structured into material attitudes and values. On these values rest the technological competence of the person.

Interaction with the human environment translates potentialities into structured actualities or powers which, when fused with information about mankind form the social attitudes and values on which a person's moral competence rests.

To interact with an unknown is to structure it and to structure an unknown is to form an ideal, broadly defined. Such interaction leads to the formation of religious attitudes and values, on which spiritual competence rests. Again, "religious" and "spiritual" are used as psychological terms rather than as denominational ones. To structure an unknown requires an act of faith and is therefore religious in that sense.[1]

As the Self interacts with its ownself (an environment always present in the life of each person) in the context of the other en-

---

[1] When a Buddha, a Christ, a Moses or a Mohammad "reveals" a structuring of the ultimate unknowns and large numbers of people accept it, a religion is founded. All people form religious values as we define them, including atheists, simply because there is no other way to relate to unknowns except on faith.

vironments, all of the other values (structuring of actualized
potentialities fused with what is known about those environments
and its ownself) are integrated. This integration constitutes the
structural and functional reality of personal identity. The de-
velopment of the Self--the structuring of process with content,
the formation of values--is the fundamental expression of creativity
inherent in all human beings. On this integrated structuring rests
personal effectance--mastery over the environment and thus the ca-
pacity for self-transcendence and continuing development. Personal
effectance is "self-competence"; it is a combination and integration
of technological competence, moral competence, and spiritual com-
petence.

It should be noted here that since the self includes parts of
the physical and human environments, all of which embody unknowns,
the attainment of spiritual competence subsumes all other competen-
cies. Thus, the future of an individual and the nature of his po-
tentialities at any given point in time are unknowns. If he has no
"faith," he cannot structure these unknowns, i.e., he cannot create
a self-ideal and pursue a destiny consistent with it. This results
in a suppression of all other potentialities, because without that
ideal self (which is a combination of all the ideals derived from
interaction with the unknowns inherent in each environment) there are
no criteria by which the Self can make decisions about its future.
Without it, decisions will be made in terms of what brings immediate
pleasure and what avoids present pain or discomfort. And since facing
unknowns always produces the discomfort of anxiety, a vicious cycle

is set in motion, which causes the organism to avoid precisely what
has to be done in order to make that "creative advance into novelty"
which self-actualization represents.

By now it is obvious that the Anisa Model embodies a compre-
hensive value theory. We found no way to explain values in affective
terms alone; nor could we exclude content or information from the
definition. All categories of potentialities and information are in-
volved. Thus, we define values as relatively enduring organizations
or complexes of information blended with actualized potentialities--
psycho-motor, perceptual, cognitive, affective, and volitional--which
provide an orientation or predisposition to respond in a particular
way to some aspect of the individual's environment usually in terms
of some purpose. They include an evaluative or judgmental element
which clears the way for action. They are higher-order organizations
of related attitudes centering around response possibilities to dif-
ferent elements of the environment. The value system is composed of
all the values integrated around fundamental aims, purposes, or ul-
timate concerns that are inherent within the values. Thus, attitudes
are values in their differentiated forms; values are integrations of
attitudes; the total value system of the person is the integration of
all his values; it is the character of the person--his identity. In
the broadest sense of the word, then, education means the process of
value formation which is synonymous with character formation.

The information represented in the content curriculum is imparted
to children as they interact with environments while at the same time

all the processes which constitute learning competence are strengthened. Thus the curriculum itself reflects both vertical (content) and horizontal (process) organization. In other words all content would be taught in ways which strengthen process (learning competence). The horizontal organization facilitates the transfer of knowledge, an ability that is the hallmark of a competent learner.

CLASSIFICATION OF INTERACTIONS WITH AND ARRANGEMENTS OF ENVIRONMENTS: THE ANISA THEORY OF TEACHING--.

A full understanding of teaching, defined as arranging environments and guiding interactions with them to achieve the goals specified by the theory of curriculum, depends on a classification of arrangements and interactions in terms of those goals. If the goals all relate to the achievement of learning competence and learning competence means the ability to differentiate, integrate, and generalize aspects of experience, then we can classify environmental arrangements and interactions with them in terms of which aspect or aspects of learning competence they facilitate. For example, some arrangements[1] and some interactions may facilitate differentiation, others may foster integration or generalization; some may do all three. Since children are differentiating, integrating and generalizing on different develop-

---

[1] The theory translates into thousands of applications. For instance, finger painting with only one color will not facilitate differentiation where visual discrimination of hue is concerned. Thus the educational mileage to be gained from one-color finger painting is less than it might be. The environment needs to be rearranged (i.e., one or more additional colors provided) and/or interaction must be guided in a different way (i.e., child can be encouraged to use another color).

mental levels, this must be assessed before one can know how to arrange environments and guide interaction with them. Thus Anisa teaching is diagnostic and prescriptive where enough is known to make a good diagnosis. In the absence of sufficient knowledge to make such a diagnosis, Anisa teaching is speculative, experimental, and improvisational. Through such approaches more becomes known about the child's developmental level in regard to given process or content and teaching can become more prescriptive. Ultimately, the child will come to help actively in the diagnosing and prescribing and will eventually become a good teacher of his own self, i.e., he will arrange his own environments and determine his own interactions with them.

It is important to note here that the teacher, himself, is a part of the human environment and how he "arranges" himself and guides the child's interaction with him is of critical importance. On that depends the emergence of the relationship between them, and on that relationship much hangs in the balance: whether or not the child falls in love with learning, desires to pursue his destiny with joy, excited by the mysteries of his own potentialities, and encouraged by a faith that somehow deep down says, "I can and I will."

STAFFING ARRANGEMENTS

Launching an educational enterprise of this magnitude requires not only a highly skilled and experienced staff, but a diversification of efforts that only specialization can provide. The Model designates the master teacher as the key staff person. Preparation of the master teacher includes understanding the entire body of theory and the ability

to teach so that children can become competent learners. This role is supported by the following staff positions: assistant teachers and aides; a diagnostician and evaluation specialist; curriculum and programming specialist; communication and media technologists; multi-arts specialists, who are competent in all the arts and know how to draw upon them as effective means for the development of learning competence; a family-community-school liaison worker whose job is to reduce cultural discontinuities between home and school and help to administer substantial parental and community participation in all activities; learning disabilities specialists; health and medical specialists; and the program administrators and their staff whose function is to organize resources to achieve the educational goals with maximum efficiency.

Differentiated staff thus represents a structural response to a need for the individualization of instruction through specializing staff assignments according to the needs of the child. Since teachers are not interchangeable parts within the educational system, teaching personnel must be employed in ways that are consistent with their areas of strength and preparation thereby insuring the maintenance of an effective and comprehensive support system for the child. Such a differentiated staffing arrangement will also include the utilization of students to teach other students. This requires a particular kind of training for master teachers to enable them to train children and benefit youth to teach their colleagues. The ultimate benefit for the teacher-student--the child as teacher--is the consolidation of his own learning. The master teacher is envisaged as a new kind of generalist,

one who possesses a wide array of competencies which make him effective in working with children and supporting staff. Among his roles are the arrangement of environments and the guiding of interaction with them, making decisions about instructional activities within the context of the various curriculum areas of the model; determining modes of instruction and selecting the appropriate media, supervising teachers and aides, orchestrating the assistance of the support staff as needed and to some extent participating in home-community-school activities which are arranged to maintain experiential continuity for the child.

The "learning competence" of a social system--the means by which the potentiality of the total group as a group becomes translated into actuality--depends in large measure on the same processes which release the potentialities in the individual: differentiation and integration. Thus staff differentiation is essential to the Model. The demise of a differentiated staff comes when the provision for their integration is niglected. Integration is only possible when those differentiated staffing roles become integrated around well-articulated objectives that are related to the philosophical and theoretical bases of the model. A noetic integrator unites people as well as ideas. The philosophical basis of the model is therefore essential to the success of staff differentiation and its effective integration. The presence of purpose, agreed to by all staff members enables the differentiation to be flexible and situationally determined on one hand and yet consistent and ever-present on the other.

PROSPECTS

Education faces two critical and interrelated problems: how to

improve education generally and how to equalize educational opportunity. Because the Anisa Model fully addresses these two issues, its prospects are promising.

General improvement of education will depend on the following characteristics, each of which the Model incorporates:

1. Comprehensiveness

2. Institutionalized self-renewal by perpetual up-dating through research and evaluation.

3. Broad philosophical base with coherent and clearly articulated body of theory which enables the system to translate research findings into practice.

4. Clear-cut specifications that embody goals stated in operational terms where feasible so that evaluation, modification for improvement, and cost-effectiveness determination are facilitated.

5. Process emphasis coordinated with more logical and coherent organization of content.

6. Individualized and developmentally based curriculum which reduces failure and increases probability of success.

7. A competency-based staff preparation program which insures quality control in staff selection.

8. Provision for home and community collaboration in formation of total support system from conception on.

Equalizing educational opportunity depends on a number of the above factors. Equalization cannot mean providing everyone with the same experiences at the same time, determined by chronological age. Ultimately it comes down to providing whatever experiences are needed, when they are needed, to release the potentialities of the child at an optimum rate by enabling him to become a competent learner. This is only possible if the curriculum is comprehensive, process-oriented,

and covers content important for effective dealing with environments, if the learning experiences are individualized and developmentally based, and if it imbues the child with a sense of his own illimitable potentiality and commits him to perpetual learning. Finally, it means having competent learners as teachers, for more learning than we care to admit comes from living and working with good models. Thus, equalizing educational opportunity necessitates a radical reconceptualization of education itself--a new way based on a new vision.

We have presented a new vision of education as the transformation of man and a way to sustain it. "Every transformation of man," says Lewis Mumford, "except that perhaps which produced neolithic culture, has rested on a new metaphysical and ideological base; or rather, upon deeper stirrings and intuitions whose rationalized expression takes the form of a new picture of the cosmos and the nature of man (1962, p. 171).

For us, the Anisa Model is a rationalized expression, in the form of an educational system, of those "deeper stirrings and intuitions" which we have sensed in so many dedicated teachers of young children. If that rationalized expression is a reflection of a fundamental truth about man that has begun to surface in those stirrings and intuitions, then Anisa may come to be the long-awaited renaissance in education.

PARTIAL LISTING OF PROCESSES

PSYCHO-MOTOR

I. Balance & Posture
  a. Laterality
  b. Verticality
  c. Directionality

II. Locomotion
  a. Sequence
  b. Synchrony
  c. Rhythm

III. Manipulation/Contact
  a. Receipt
  b. Propulsion

PERCEPTION (detailed here only for visual mode)

I. Movement Perception
  a. Directionality (convergence)
    1. fixation
    2. horizontal pursuit
    3. vertical pursuit
    4. circular pursuit
    5. depth pursuit
    6. combination
  b. Duration (time perception)
    1. velocity
    2. synchrony (simultaneity)
    3. rhythm
    4. sequence
    5. pace
  c. Cause and Effect

II. Space—2&3 dimensional
  a. Figure-ground (form perception)
    1. contour
    2. edge
    3. proximity
      a. above/below (height)
      b. left/right (width)
      c. front/back (depth)
      d. size/area (distance)
    4. separation
    5. closure (filling in gaps)
    6. continuity (organize objects in sequence)
    7. constancy

  b. Projective Space (3-D)
    1. Monocular cues
      a. proximal size
      b. brightness
      c. shading
      d. texture gradient
      e. linear perspective
      f. interposition (closer objects obscure objects behind them)
      g. movement parallax (closer objects move faster)
    2. Binocular cues
      a. convergence (eyes must turn in)
      b. retinal disparity

III. Color
  a. Hue (red, blue, etc.)
  b. Saturation (amount of grey in color)
  c. Brightness
  d. Contrast

IV. Translation of 2D to 3D referents

V. Translation of 3D to 2D

Other sense modes also—
Auditory, etc.

COGNITIVE (in alphabetical order)

abstraction	implication
analogy	induction
analysis	inference
associativity	interpolation
asymmetry	interpretation
attribute	inversion
causality	metaphor
classification	measurement
closure	negation
combination	number relations
conjunction	object Permanence
correlation	prediction
deduction	reciprocity
disjunction	reversibility
equivalence	seriation
experimenting	space/time
extrapolation	structuring
formulating Models	symbolization
generalizing	symmetry
hypothesizing	synthesis
identity	transitivity

Each of the above processes has to be understood in terms of both developmental stage and sub-process.

The overall developmental stages are:
a) sensory motor stage (0-2 years)
b) preoperational stage (2-7)
c) concrete operations (7-11)
d) formal operations

Each of the processes can be divided into sub-processes and their own stages of development also. For example,

Classification: (can be divided into)
1. Simple sorting
2. "True" classification
3. Multiplicative classification
4. All-some relation
5. Class inclusion relation

(And, classification seems to go through the following developmental sequence)
a. Stage I   (Graphic Collections--2 and a half to 5 years)
b. Stage II   (Non-graphic collections--4 or 5 to 7 or 8)
c. Stage III (Classification--one aspect of the period of concrete operations--8 to 12)
d. Stage IV   (Period of formal operations (around 12 years)

AFFECTIVE

I.   Inhibition
        of hate, rage, hostility, etc.
II. Coping
        with rejection, failure, pain, disappointment, criticism, loneliness, sadness, etc.
III. Management
        of fear, anxiety, anger, frustration, jealousy, etc.
IV. Facilitation
        of ecstasy, joy, happiness, etc.

The affective area deals with emotional energy.

In the beginning, the energy is unfocused. As competence is gained, the learner gains an ability to focus the energy.

VOLITION

(Volition refers to purpose, subjective aim, or will)

I.   Attention
II. Goal Setting

III. Will
        a. Self Arousal
        b. Perseverance
        c. Effecting Closure
IV. Fantasy

Of course, each of the above can be broken down into sub-processes also. For example:

Goal Setting
1. Direct attention toward future
2. Consider alternative courses of action
3. Project consequences of action
    a. Eliminate negative consequences for greater long run
    b. project and evaluate feasibility of alternatives
4. Determine priorites of alternatives
5. Integrate alternatives into coherent plan of action
6. Commit oneself to plan of action
    a. sense of faith in rightness of choice
    b. confidence
    c. temporarily giving up other possibilities

CREATIVITY

"Creativity is a complex condition wherein exists a continual interrelationship between the creative person who is involved with the creative process within a creative environment, producing a creative product which is ongoing in time (Walter Leopold, 1973)"

I.   Attributes of the Creative PERSON:
        a. Openness
        b. Sensitivity
        c. Productivity
        d. Divergent Thinking
        e. Involvement

II. Attributes of the Creative PROCESS:
        a. Motivation
        b. Preparation
        c. Incubation
        d. Illumination
        e. Verification

III. Attributes of the Creative ENVIRONMENT:
        a. Psychological Safety
        b. Psychological Freedom
        c. Cultural Freedom
        d. Internal Evaluation
        e. Support

IV. Attributes of the Creative PRODUCT:
   a. Uniqueness
   b. Technical Skill
   c. Expressive Form
   d. Deliberateness
   e. Closure

SOCIAL

Successful Group Members Can . . .

(Task Functions)
_____ Initiate (Propose Tasks, Define Problems, Suggest Procedures)
_____ Seek Information or opinions (Request facts, relevant information, ask for suggestions and ideas)
_____ Give information or opinions
_____ Clarify or Elaborate (Interpret, reflect, clear up confusion, indicate alternatives, give examples)
_____ Summarize (Pull related ideas together, restate suggestions)
_____ Test Consensus (Send up trial balloons to see if group is reaching consensus, check to see how much agreement)

(Social Emotional Functions)
_____ Encourage (Be friendly, warm, responsive; Accept others & their contributions; Listen; Show regard by giving opportunity or recognition)
_____ Express Group Feelings (Sense feeling, mood, relationships within group; Share own feelings)
_____ Harmonize (Attempt to reconcile disagreements, reduce tensions, get people to explore their differences)
_____ Compromise (Offer to compromise own position, ideas, status; Admit error; Discipline self to help maintain group)
_____ Gate Keep (See that others have a chance to speak; Keep discussion a group discussion rather than a 1-2-3-way conversation)
_____ Set Standards (Express standards to help group achieve; Apply standards in evaluating group functioning and production)

The Effective Communicator-Listener Can . . .

_____ Paraphrase
_____ Make relevant point to the discussion
_____ Direct expressions of feelings

_____ Describe other's behaviors
_____ Contribute an idea or suggestion
_____ Check feelings of others
_____ Exchange feedback
_____ Tell how others affected him

An Effective Group has . . .

_____ Morale (unity, positive group identity, emotional climate, need satisfaction, actualization, esteem, flexible social interaction, security, trust)
_____ Supportive Relationships (judgement suspended, acceptance, respect, equality, worth of individuals, empathy, feedback, communication patterns, interaction patterns)
_____ Common Goals (common agenda, no hidden agendas, identified issues, clarity, concreteness, ability to resolve conflict and make decisions.
_____ Constructive Processing (maintaining agendas, everyone participating, openness, setting standards, initiating, mediating, expediting, clarifying, encouraging, relieving tension, summarizing and gate keeping)
_____ Basic Prerequisites (identify group norms, read non-verbal cues, discipline self, be objective, obedient, resist temptation, have patience, delay gratification, be socially graceful.