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The author expresses the need for operationally-defined theoretical models so that an explicit value position can be taken against which the work could be evaluated. The primary response to this need has emerged as an operationally-defined theory of the evolution of social-psychological "self" which may occur in an individual, and an analysis of current change and needs in society. Most of this paper is taken from the Improving Teaching Competencies Basic Program Plan of the Northwest Regional Educational Laboratory. A discussion is presented on the need for improvements in education based on appropriateness. This is followed by an examination of today's youth in terms of learning and the evolution of self, which is further broken down into five distinct phases of development. Other concepts explored by the author include human worth, dignity, failure, freedom, developmental movement, current needs, and societal change. Emphasized is the thought that linkage among roles and institutions for improving educational evaluation cannot be expected to occur by chance. Rather, creative work is needed. (BW/Author)
"...for there is nothing either good or bad, but thinking makes it so...." How, then, do we evaluate our public system of education. There is a challenge in these words that Shakespeare wrote for Hamlet some 370 years ago. It is easy enough to say what we believe and what we desire. Too often we leave unsaid why our "thinking makes it so."

The Meaning and Vulnerability of Educational Evaluation

Let us use the definition that Stufflebeam and his colleagues have proposed for the process of educational evaluation as that of applying information to answer questions concerning the context, inputs, processes and products of the educational system. In the process of evaluating, one must have an objective assessment of the way things are, an operational definition of what is desired in accordance with what is possible, and an operationally defined theoretical model of how and why things do, and may, operate in the system.

Educational evaluation is most vulnerable in its lack of operationally defined theoretical models. Without such models, it is difficult to determine what caused a change, or lack of change. Without them, there can be no accountability for negative side effects, or reward for constructive spinoffs. We need them most, in education, to struggle toward an answer to John Goodlad's question, "What kinds of human beings do we wish to produce?"


Consider how we might react to the following situations, should they occur in our own school district.

"All the teachers have gone on strike." We might think this good if we believed it necessary to correct an unjust situation which was maintaining a low quality of instruction in our schools. We might think it bad if it were viewed as unfair demands of teachers who were unconcerned about the welfare of their students.

"The district has adopted the new Zippy Do Readers for use by all elementary students." We might think this good if we believed these curriculum materials could be used in a manner appropriate to "all" these students. But, if use of these materials inhibited some from developing toward their potential as responsible, contributing members of society, we might feel great concern. The term "appropriate" will be defined a little later in this paper.

"The district is now using digital computers to manage course selection and placement of all high school students." We might think this good if it meant that such scheduling now cost the district less and freed some staff from arduous, dehumanizing bookkeeping tasks. We might think it bad if we believed that it forced some students into learning experiences that were poorly suited to their capabilities, nonrelevant and/or blocking their movement toward more advanced ways of experiencing.

"Seventh graders demonstrated knowledge of 32% more facts in the area of general science this year than last year." We might think this good if we believed that achievement of such facts by seventh graders were a valuable end in itself. We might think otherwise if we learned that the students had to spend 300% more time studying general science in order to achieve this increased level of achievement, that 90% of this increase was not retained
three years later and that 64% of the students became significantly more negative in their attitude toward learning science than in the previous year.

As developers of curriculum and materials for training educators, we at the Northwest Regional Educational Laboratory (NWREL) have felt strongly confronted by the need for operationally defined theoretical models so that we could take an explicit value position against which we could evaluate our work. The core of our response to this confrontation has emerged as an operationally defined theory of the evolution of social-psychological "self" which may occur in an individual, and an analysis of current change and needs in society. While we don't find the following statements completely adequate, we do believe they have progressed far enough to be presented for critique and contributions from others. Most of this paper is taken from the Improving Teaching Competencies, Basic Program Plan of the Northwest Regional Educational Laboratory.

The Need for Improvements in Education Based on Appropriateness

Major improvements are needed in the education of young people for living in today's world. Traditional school methods and curriculum content, centered mainly in the transmission of information, are not providing students with the knowledge, skills and attitudes necessary to assist them in the process of becoming responsible individuals capable of living interdependently in a world of continuous, rapid changes.

Schools have generally done well in meeting objectives which centered around cognitive learning for students with high intellectual ability and motivation toward cognitive achievement. They have not done well in meeting


those objectives which promote individual worth and dignity, self-understandings, maximum potential for individual growth, personalization of education, and self-actualization in the learning process. These latter kinds of objectives have seldom been stated in precise terms, nevertheless they have been inferred in virtually all generalized statements of educational aims.

The rapidity of change in our society has: (1) put a heavy burden on individuals to be self-understanding, self-sufficient and interdependent. It has also: (2) made necessary the ability of institutions to adapt to new and unforeseen conditions. Therefore, new and precise procedures are demanded for achieving more appropriate kinds of learning for students and of assisting institutions to adapt to new conditions.

Appropriateness in what was taught, from the orientation of the past limited emphasis on academic achievement, was considered to be primarily a matter of individualizing learning experiences in terms of readiness. In the current broader perspective, appropriateness must now also include personalizing learning experiences in terms of relevance and facilitation of the individual's social-psychological "self" evolution toward an orientation of personal initiative and social responsibility.

Today's Youth: Learning and the Evolution of Self

While the work of the schools is to provide learning experiences, the product of schools is change in the behavior of learners. A major part of the need which our work at the Northwest Regional Educational Laboratory is
responding to is based on the theoretical supposition that today's youth represents a potentially advanced kind of learner. The learning that schools need to provide must be understood in the context of this theoretical model of social-psychological evolution of the self.

"The act of learning is seen as a complex social-psychological phenomenon. What is seen by the potential learner, how it is seen, how it is related to other awarenesses, the contexts in which it is remembered, and how it is applied behaviorally will depend on his perceptions of its relevance, its salience, and upon conditions of reinforcement. Relevance, salience, and conditions of reinforcement will depend upon the learner's self (which has developed out of his interactions with others) and his current perceptions of relationships with others." This statement is from a working paper produced by the Cooperative Project for Educational Development.

For human beings, it appears that the conditions for determining what is reinforcing, alter in fundamental ways as the individual moves along a dimension of social-psychological self-evolution. An operationally defined model of self-evolution appears to be essential for defining a formal system of education that is open to evaluation. What is good or bad as

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8 Perry, W., *Forms of Intellectual and Ethical Development in the College Years*, Bureau of Study Council, Harvard University, Cambridge, Massachusetts, 1968.


an educational outcome is a function of what we understand people to be and what we hope they can become.

The form of the model is adapted from Perry's report, "Forms of Intellectual and Ethical Development in the College Years." It was conceived as presented here by Charles Jung with major contributions from Jean Butman, Barry Jentsz, Alan R'no, Christine Edwards, Robert Wittes and Robert Ronsenberg. Consultation on a scholarly retrieval by Pino and review by Jung was contributed by Max Goodson. Critical reviews were contributed by John Hough, Roger Shuy, Henry Brickell, Ronald Lippitt, Eva Schindler-Rainman, William Perry and Lawrence Kohlberg.

The work of Piaget, of Perry, and of Kohlberg are especially applicable. Research done on Piaget's stages of cognitive development and on Kohlberg's stages of moral development indicate that the validity of the theoretical position presented here is already established. Both Perry and Kohlberg have stated their belief that this is so.

Kohlberg suggested that Loevinger's model of stages of "ego" development may already encompass enough aspects of this model of self-evolution to make its presentation unnecessary, although acknowledging that some careful study would be needed to determine if this were so. Perry believed that this

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13 Perry, op. cit., (8)


15 Perry, op. cit., (8)


17 Recorded interview with William Perry, January 1972.

18 Recorded interview with Lawrence Kohlberg, January 1972.

19 Ibid.
model of self-evolution was a significantly different, and highly valuable model which relates closely to the others. At this point, we conceive the evolution of the social-psychological self in an individual as a product which can result from the individual's movement through stages of cognitive and moral development. It represents his understanding of "who I am" given his capabilities of cognizing and valuing. Conversely, this self-understanding provides guidelines for the individual's use of his cognitive and moral capabilities in experiencing and "making meaning" in his life. It therefore, is of special importance to the educator whose responsibility is to facilitate this experiencing and "making meaning" by the individual.

Lippitt, who worked with Piaget in the early stages of his research, suggests that Piaget's stages of cognitive development are best understood as emergent from the organism's hereditary potential, dependent upon appropriately timed environmental exposures. He suggests Kohlberg's moral stages of development, each of which depends on prior achievement of the corresponding cognitive stage, are best understood as the result of interactional confrontations. Again, these must occur within certain limitations of timing in the life span of the individual. Lippitt suggests that this self-evolution model is best understood as the individual's movement, concerning his understanding of who and what he is, from hereditary emergence of awareness, through interactional kinds of awareness, to a transactional kind of interdependence where the individual accepts his part in responsibility for his self and his influence in the world.21

Depending upon your familiarity with the work of these social scientists, you may find it of particular interest to consider these issues as you read

20 Perry, op. cit., (17)
the theory described here. The following presents our progress at defining a model of social-psychological self evolution.

**Phase I: Animal Self.** In the first phase, the *homo sapien* is an animal being with certain genotypic needs and capacities. The "animal" *homo sapien* learns in the same general process as all animals.  

Learning is an operation occurring within the animal in which associational bonds are formed between cognitive, affective and/or motoric elements. We conceive the basic, behaviorist formula for the animal learning process as:

\[ \text{Importance} \times \text{Contiguity} = \text{Learning} \]

Importance is defined as change in the physiological need/capacity state of the organism. Contiguity is defined as juxtaposition of elements in time and space, or by virtue of similarity, as perceived by the organism. Conditions effecting the animal learning process are primarily concerned with physiological need capacity states and schedules of reinforcement. There are also some kinds of "insight" learnings involving cognitive restructuring. These derive from "similarity" perceptions and are precursors to the change which takes on special importance for *homo sapiens* as they evolve through stages.

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and phases of cognitive, moral, and self-development. We have labeled the above, Animal Learning Formula.

*Homo sapiens* differ from all (or, at least, most) other animals in having innate needs/capacities that allow for awareness of self as subject as well as object. If cultural interactions reinforce such awareness, the individual learns to differentiate himself as an initiator of action—as an actor as well as a reactor. The capacity for such awareness appears unique to *homo sapiens*. An individual becomes "human" to the extent that this awareness becomes usable to him in initiating ways to meet his needs within his culture and in contributing to the further evolution of that culture. The next four phases of the dimension of self-evolution concern the development of this awareness and the major changes which it can undergo.

**Phase II: Stereotypic Self.** In the second phase, the individual becomes aware of himself as "subject." This first understanding of "who I am" largely based on stereotypes of what he is learning other people are and his subsequent understandings of what he hears them telling him about who he is. It occurs through interactions with parents, peers and others in his life space. It involves modeling and reinforcement in accordance with the social

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26 Piaget, op. cit., (14)

27 Kohlberg, op. cit., (16)

28 Piaget, op. cit., (22)


roles and norms of his culture. ³¹, ³² Behavior which we call "play is an important instance of this development in American culture."³³, ³⁴

There are reported instances of individuals raised as animals who never evolved out of Phase I, Animal Self, understandings. Beyond a certain age, they seem to have lost the capacity for such evolution.³⁵ The concept of "being" is a product of cultural socialization.³⁶

Once Phase II, Stereotypic Self, experience has been entered, an added dimension of the learning process is initiated. The Animal Learning Formula is always applicable to human beings, under certain conditions, whatever their state of self-evolution. But, the further advanced their self-evolution, the more often an altered formula replaces it. The altered formula is as follows:

\[ \text{Relevance} \times \text{Contiguity} = \text{Learning} \]

Contiguity and learning retain the same definitions. Relevance is defined as a potential for effecting change in the self. Thus, we are noting that in addition to changes in the physiological need/capacity state of the \textit{homo sapien}, factors that can effect his social-psychological understanding of who and what he is become reinforcers of the human individual's learning. Beyond


³³\textit{Erikson, op. cit.}, (24)


³⁶\textit{Socialization and Society, op. cit.}, (31)
schedules of reinforcement, we must now be concerned with motivational factors of desire to please others, interest in phenomena of the culture, and understanding of self as responsible for taking on the role of being a learner.  

We must be concerned with factors of ambivalence concerning inner versus outer directedness, shifting needs between growth and security, and long-versus short-range goal awarenesses. We must be concerned with factors of maturation beyond the innate physiological, such as those which are culturally refined intellectual and affective ones. Piaget's stages of cognitive development and Kohlberg's stages of moral development are the major examples. We must be concerned with the stage of self-evolution and corresponding orientation toward perceiving and experiencing the world.

We now place this process which we label the Human Learning Formula alongside of the Animal Learning Formula.

Animal Learning Formula

<table>
<thead>
<tr>
<th>Importance</th>
<th>Contiguity</th>
<th>Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>(change in physiological need/capacity state)</td>
<td>(juxaposition of elements in time and space or similarity)</td>
<td>(associative bond formed between elements in individual's awareness)</td>
</tr>
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</table>

Human Learning Formula

<table>
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39 Cooley, op. cit., (29)


41 Erikson, op. cit., (24)

To make the Human Learning Formula operational, we must complete our definition of self-evolution.

Individuals who have a Phase II, Stereotypic Self, experience their world in either or dichotomies. Things are good or bad, right or wrong in relation to what the individual understands from others. He lacks an experiential or cognitive base of his own for assessing the validity of these dichotomous evaluations. He has accepted them based on the understandings of his self gained by perceiving others and "Animal Learning Formula" reinforcements of who he is by those others.

If the society tells the individual that all that he is doing, and his reactions, are a function of his being one of a stereotypic role (e.g., "All little boys do what you're doing!" or "All blacksmith apprentices feel that way!"), he will lack the basis for forming individual, personalized opinions. His experience belongs to the class of which he is a part rather than his self as a unique individual. By contrast, in a culture where individuals are allowed to own their experience, it is possible to evolve to a Phase III, Opinionated Self.

**Phase III: Opinionated Self.** We adopt the definition of the Hill and Hill matrix in defining "personalized." It is the individual's awareness of having his own, unique thoughts, feelings and behavior in the here and now as contrasted to abstract "things" happening at some other "time" or "place." When society allows individuals to personalize

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43 Kohlberg, op. cit., (26)


experiences, they begin to develop areas of opinion in their orientation toward the world. Some things remain dichotomous "rights or wrongs" based on stereotypes that are retained. A growing number of others begin to be assessed and evaluated on the basis of one's own (owned) experience. Such things may be "right for me" and "wrong for you" -- "This issue is a matter of opinion." 46, 47

When the individual begins to approach experiences on the basis of expecting that a personalized opinion may be appropriate, rather than expecting to react on the basis of his stereotypic understandings of the world, he has entered Phase III, Opinionated Self. It is a fundamental change in his orientation toward the world. It represents a fundamental internal reorganization. The individual in Phase II organizes his understanding of who and what he is around a set of stereotypes and expectations of reinforcement. The Phase III individual organizes his understanding of who and what he is implicitly around his personalized experiences and corresponding opinions. While the transition to an Opinionated Self was based on "owning" one's experience, the individual in this phase is not likely to feel a need to justify opinions. The orientation is that everyone has a right to opinions without awareness of how this orientation was arrived at. 48

The Nature of the Boundary of Self. At this point we must note an additional dynamic of the evolving social-psychological self. The boundary

46 Perry, op. cit., (8)
47 Adelson, J., "The Political Imagination of Young Adolescents," Daedalus, Volume 100, No. 4, Fall, 1971.
48 Perry, op. cit., (17)
of understanding oneself as subject—as one taking action rather than simply reacting—is a changing understanding of the meaning of choice in behavior. The extent and nature of this awareness changes in each phase of self-evolution.

The Phase I, Animal Self, experiences its behavior as reactions to alternative conditions. The Phase II, Stereotypic Self, experiences alternative conditions as providing choices toward which he can initiate action consistent with his understanding of his self. He recognizes choices. The Phase III, Opinionated Self, experiences himself as a chooser. He has areas of personal reference for deciding actions which he can initiate. Anything which is "a matter of opinion" can be explored exclusive of stereotypic evaluations.

We identify choice as the boundary of self in as much as the individual initiations of actions, or failures to initiate action, put him in situations where he does, or does not, expose his self to influence which can change his understanding of who and what he is. We will define how this understanding of choice as the boundary of self changes twice more in relation to each of the last two possible phases of self-evolution.

One further note of clarification must be made before proceeding to describe the last two phases. The boundary of choice is internal between the concept of self and other aspects of the individual as well as between the self and the individual's experience of the external world. That is, the self-concept does not necessarily include all of what the individual is. It is not the same as most definitions of the term "ego" (e.g., Allport) although some use the terms "ego" and "self" interchangeably. The self is only what the individual understands and accepts himself to be.49

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For example, the individual might not accept certain physical attributes, feelings or fantasies which he has as part of who and what he is. He may take action to avoid admitting them to his self-awareness. Clinical concepts of neuroticism and defense mechanisms can be defined from this concept.\textsuperscript{50} Similarly, the individual may block out awareness of aspects of his external life space from self-awareness. We will explore this further in defining the last two phases of self-evolution.

**Phase IV: Existential Self.** In a society that presents cross-cultural alternatives, the individual may arrive at relativistic awarenesses which cause him to reject his stereotypic and opinionated orientations.\textsuperscript{51, 52} The rapid changes, mass media of communications and travel of current American society are pressing such relativistic awarenesses on individuals at unprecedented rates.\textsuperscript{53} Relativistic awareness has the attraction of providing the individual with a broader, more valid awareness of world realities and his own range of potential. They challenge the feelings of security attendant with a simpler view of existence. Prior to having relativistic awarenesses, it was easier to avoid choice implications concerning behavior such as nudity. But, today's youth sees that "topless" means one thing in Samoa, another on the lower east side of New York, and yet another in Keokuk, Iowa. If


\textsuperscript{51} Perry, \textit{op. cit.}, (8)

\textsuperscript{52} Kohlberg, \textit{op. cit.}, (16)

they choose to be open to the philosophical, as well as pragmatic, range of alternative meanings, they experience the excitement of a vastly expanded universe. They enter a Phase IV, Existential Self, by replacing their opinionated experiential organizers (for understanding who they are) with a value for experiencing in a variety of different contexts. For youth in our present society, it appears that one of two alternative routes may be taken once the Existential Self is achieved. The more constructive route, in terms of movement toward the following phase with minimal risk, is described by Lippitt as follows. "There is a greatly increased sense of power. More weight is given to the here and now versus precedent or future consequences. This gives one a sense of excitement and creative freedom."

Perry equates the Creative Self with the individual in his model who has achieved usable awareness of "relativism." In a constructive response, Perry says, "It can be a period of intense excitement because of a person's discovering the niceties of patterning in given frames of reference." It, "reestablishes the possibility of making judgments" between orientations which were lost during the Opinionated Phase when, "everyone has a right to his own opinion!" "In relativism, the person submits to the discipline inherent in a given contextual integrity of a given point of view--and then he can examine the logic, or illogic, internally, and its degree of congruence with external data. When he does that, he has to acknowledge that other systems also have integrity." Thus, "the Existential Self moves into increased valuing, but it is contextual in terms of everything being relative."

54 Perry, op. cit., (8)
55 Lippitt, op. cit., (21)
56 Perry, op. cit., (17)
Perri describes the second route which the individual with a new Existential Self can take as one of "escape" or "rebellion." The escapist way of using this awareness is an "avalue" one in which no judgments are valid because, "everything is relative." "It all depends on the context, therefore anything goes!" Perry notes that in counseling a youth who takes this position he will acknowledge that, "values are different in the Trobrian islands, but you're here!" This response implies the factor of "commitment" which will be experienced in the next phase of self-evolution.  

The Phase IV, Existential Self, taking the escapist route loses the previous bases for valuing in stereotypic or opinionated terms. It retains only its organizing value-for-experiencing. The boundary of self becomes permeable to the point of disintegrating as past reasons for choosing, or not choosing, and thus exposing the self to influence, are rejected. It is, correspondingly, a potentially self-destructive phase. The individual might do things from this availing posture which make it later difficult to believe certain things could be true of his self. He might kill someone, for example. Camus' novel The Stranger, illustrates this orientation dramatically. Harvard students who arrived at this phase of orientation described it as being, "Like standing on quicksand."  

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57bid.

58Adelson, op. cit., (47)

59Erikson, op. cit., (24)


The early experiences of the Phase IV, Existential Self, can involve much energy devoted to fighting against being drawn back toward the simpler stereotypic and opinionated kinds of orientations. We will explore this more later in considering what is happening in current American society and our ideas about how and why today's youth are different from past generations. The later experience of the escapist, Existential Self, might well be characterized as a true "Hippie" orientation.\(^\text{62}\) Nothing is good or bad. Everyone "should be free to do his own thing." We will note later how this differs from what might be characterized as a "Yippie" orientation.

Some Peculiar Characteristics of the Existential Self. It should be noted that, compared to the Stereotypic, Opinionated or Creative Selves, the Phase IV, Existential Self, has some peculiar characteristics. The organizing principle, a value for experiencing (whether in terms of valuing in different contexts or the escapist valuing position), is really more a negative value—e.g., a value against being blocked from any particular experiences—than a concrete, positive value as in the case for the other three. The boundary defined in terms of a kind of understanding concerning the meaning of choice in behavior is, likewise, either more of an absence of any recognition of boundaries than a particular definition for them or a chameleon-like interchangeability of boundaries. It seems quite possible that the Existential Self is an anomaly resulting from the particular conditions that our society happened to evolve to, rather than a phase necessary to the possibility of evolving to the Fifth Phase, Creative

The escape route may at least be more a special kind of prolonged transition for many individuals in our times rather than a phase of self-evolution in the same sense as the other three. If this is so, we could expect to find some individuals with a Creative Self who had had only a fleeting experience with the Existential Self orientations. We could further expect that the Existential Self Phase would disappear if conditions alter in the future. This issue becomes an important one if the model is to be used to derive guidelines for creating educational experiences. Consider, for example, the effects of aiding individuals in making the transition to an Existential Self if, in fact, it is not necessary to achieving the ultimate Creative Self! Perry notes the relativistic awareness, if not used in revolt, is used "in the pure fascination with patterned diversity," which may be the beginnings of the Creative Phase of selfhood rather than a phase in itself.

Phase V: Creative Self. It appears that three factors influence the transition from a Phase IV, Existential Self, to a Phase V, Creative Self. The first factor is to be far enough into Phase IV so that energy is free to be experiencing rather than bound up in fighting against being pulled back to the earlier, "safer" orientations. The second factor seems to involve the individual letting himself suspect that life might be purposeful. This differs from the blind acceptance of purposefulness found in earlier orientations. It is a kind of awesome wondering that admits the possibility of purposefulness in man's experience in the universe. The third factor is recognition by the individual that his behavior represents choices to expose, or not expose, his self to influence.

\[63\text{Perry, op. cit., (17)}\]
Such recognition represents acknowledgment by the individual that he has a basic responsibility for determining the creation of who and what he is. In Perry's terms, it involves the making of "commitments" in various areas of his life.

When these three factors combine in the individual's experience, he reorganizes his understanding of who and what he is. If he is ever to recognize purposefulness in existence, it behooves him to commit himself to creating all the "self" and all the life space alternatives he can so as to be best prepared to spot the "evidence" of life's purpose should it occur. He reorganizes his self around a value for growth (that is, around expansion of awareness of reality, or, awareness of his "oneness" with the universe) The world's major theologies are based on this kind of creative insight). He accepts responsibility for the choices that his behavior represents, e.g., control of the boundary of his self. He accepts, in this sense, responsibility for his part in the creation of his self. He has arrived at having a Phase V, Creative Self.

Note that this is not the same as a definition of a "creative person" or of a person who has performed a "creative act." It is a definition of social-psychological self-organization and dynamics which can be arrived at dependent upon the individual's cultural socialization. The individual

64 Rogers, C., Coulson, W., Freedom to Learn, Charles E. Merrill, Columbus, Ohio, 1969.
65 Perry, op. cit., (8)
66 Rogers, C., Stevens, B., Person to Person, Real People Press, Lafayette, California, 1967.
with a Creative Self is one who knows he is frequently maintaining, or
influencing changes in, his self by deciding upon particular social and
psychological behaviors. In Maslow's terms, he would be considered
"self-actualizing." He simultaneously knows, of course, that many of
his behaviors continue to be reactive or innate in the animal sense. He
would strive to take advantage of this latter awareness by creating
"conditions" for his own growth.

It should also be noted that the Creative Self individual does not
make explicit choices about each behavioral act. This would be absurd,
and virtually impossible. It is rather that he recognizes that each of
his behaviors represents a possibility of choice. Although there may
have been many forces acting upon him to produce a particular behavior,
it was possible that he may have done something different. He could
take initiative to put himself into a situation where conditions would
have acted as forces towards his seeing his life space differently and
doing something different. Thus, he recognizes and accepts ultimate
responsibility for his behavior and exposing himself to change.

Of course, there are many hereditary and historical things about
himself which created much of what he has become prior to his reaching
the Creative Phase of self. In that sense, he has not created all of his
self. But, once having entered the Creative Phase, he accepts that all
of his behavior represents the possibility of choice for exposing, or not
exposing, his self to change. He accepts responsibility for his own active
part in creating his self from that point on.

Exposing one's self to change usually means entering into an
interdependent relationship with another person, or persons, in which

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*Maslow, op. cit., (67)"
you are explicitly making behavioral choices according to their decisions (socially and/or psychologically). You are thus, by definition, including them within the boundary of your self. This defines those aspects of relationships with other individuals, with groups, and with one's society that are included as part of your identification. It distinguishes those from other aspects of your relationships which may impinge on your decision making, but are not included within your self identity. For example, I may give one person money because that choice is part of my identification as a Christian, but I would give another money because he is pointing a gun at me. The individual with a Creative Self thus, not only learns in relation to both animal reinforcement and his self-concept, he also initiates behaviors in accordance with the guidelines he derives from his self-concept and the ways he conceives the forces in his life. Education, therefore, is not simply concerned with "putting things into a student" which he can show he has retained. As the self evolves, it becomes increasingly a matter of the way the student initiates manipulations of his environment which, ultimately, produce further evolution of the culture.

The Dilemma of Safety Versus Change: Insight Types of Learning

From the inception of a social-psychological self in Phase II, the individual has been exposed to a new kind of dilemma as a learner.  

70 May, op. cit., (61)  
72 May, op. cit., (60)  
The animal learner has only to be concerned with outcomes in terms of his physiological need/capacity state. The human learner is additionally concerned with relevance in terms of degree of self-exposure and the degree of personalization in human interaction. Ambivalence, which is a physiologically-based natural condition in people, extends into the issues of human learning and self-evolution. Choice, as the boundary of self, mediates between the relative safety of maintaining the known, current self as against the possible advantages of self-exposure yielding changes in the direction of increased capabilities.

Up until Phase IV, Existential Self, the individual's most powerful capabilities are more apt to be used as defenses against alteration of the self than as avenues for its growth. We believe this speaks to issues such as Fromm addressed in *Escape From Freedom*. In Phase IV, the barriers to perceiving the world and one's self in broad perspective are dropped. This opens the way for insight types of learning which become the most valued goal of learning for the Phase V, Creative Self. We must now define insight learning and see how it contrasts with animal learning outcomes.

Animal learning outcomes satisfy physiological needs/capacities. Human learning is experientially based. It is a making sense, or meaning, out of experiences relative to the stage of evolution of the self. You might train a man in the animal learning sense, to weld at a definable level of proficiency. But, it is only when he perceives, in the human

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learning sense, that it is appropriate and desirable to initiate this pattern of cognitions and actions which he understands to reflect the person he is that you would call him a wander. Insight is defined as the identification of relevance, i.e., the discovery that conditions internal or external to one's being can effect a change in the self. It is the dawning of awareness that something in the life space, or something about the individual, not previously accepted as part of the self, does have potential of personalized influence in determining who and what the individual knows himself to be. Here are some of the kinds of insight which can occur:

- Insight into the nature of a dilemma—the question becomes clear
- Insight into the resolution of a dilemma—the answer becomes clear
- Insight that some attribute can become part of the self—the potential becomes clear
- Insight that an attribute is a part of the self—the capability becomes clear
- Insight that an attribute is natural to being—acceptability of a need becomes clear

Most learning of the Stereotypic and Opinionated Selves occurs as a result of reinforcement, is rapidly forgotten, and is generally accessible for behavioral application only under conditions similar to those in which it was learned. By contrast, that learning which does involve insight is easily retained, needs little or no reinforcement, and is broadly generalizable in behavioral applications. For example, tell me once, "Your father just died," and I will never forget it. It has enormous relevance. It affects my understanding of my self and many areas of my behavior.
**Diagram I: The Possible Evolution of Social-Psychological Self**

<table>
<thead>
<tr>
<th>PHASE I, ANIMAL SELF</th>
<th>PHASE II, STEREOTYPIC SELF</th>
<th>PHASE III, OPINIONATED SELF</th>
<th>PHASE IV, EXISTENTIAL SELF</th>
<th>PHASE V, CREATIVE SELF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organized around</strong></td>
<td>Reaction to awarenesses of internal need/capacity states</td>
<td>Stereotypic understandings of others and one's own roles</td>
<td>Opinions based on owned experiences</td>
<td>A value for experiencing</td>
</tr>
<tr>
<td><strong>Boundary</strong></td>
<td>None, decision making is purely reactive, criteria for choices come from response to innate needs</td>
<td>-See self as a chooser</td>
<td>-See self as &quot;choosing everything,&quot; open to all experience</td>
<td>-See self as creator of self</td>
</tr>
<tr>
<td><strong>Orientation</strong></td>
<td>Totally oriented toward responding</td>
<td>Things are dichotomies of good-bad, black-white, right-wrong</td>
<td>Things in experience &quot;owned&quot; areas are a matter of opinion</td>
<td>Anything goes, it is only bad not to experience—all meaning is in present existence</td>
</tr>
<tr>
<td><strong>Nature of Learning</strong></td>
<td>Animal Conditioning</td>
<td>Animal conditioning and social reinforcement in terms of stereotypically defined relevance</td>
<td>Animal conditioning and social reinforcement in terms of relevance defined by stereotypes and opinions</td>
<td>Animal conditioning and social reinforcement in terms of value for experiencing</td>
</tr>
<tr>
<td><strong>Most Important Conditions for Learning</strong></td>
<td>Reinforcement -Sanctions -Practice</td>
<td>Congruence with stereotypes</td>
<td>-Respect for opinions</td>
<td>-Experimental opportunities -Feedback on experimental consequences</td>
</tr>
</tbody>
</table>

**Diagram 1:**

- **PHASE I, ANIMAL SELF:** Organized around reaction to awarenesses of internal need/capacity states.
- **PHASE II, STEREOTYPIC SELF:** Boundary understanding and its changing nature as the individual engages with socialized human beings who treat them as individuals.
- **PHASE III, OPINIONATED SELF:** Transition from stereotyping to opinionating, where the individual begins to form opinions based on owned experiences.
- **PHASE IV, EXISTENTIAL SELF:** Transition to existential experiences, where the individual experiences life as a whole and seeks meaning and purpose.
- **PHASE V, CREATIVE SELF:** Freedom of creativity, where the individual becomes the creator of self and of life space.
Insight learning does not replace animal learning for people. It is an addition of increasing importance as the self evolves. It is the basis for man having created civilizations to evolve cultures. By animal learning, the individual may learn meanings which man has discovered. By insight learning the individual arrives at his own meanings for these discoveries and for his self. As a Creative Self, he strives to expand these areas of meaning and discovery.

The Concepts of Human Worth, Dignity, Meaningful Failure and Freedom

We can now be explicit about the highly valued, but generally undefined, concepts of human worth, human dignity and freedom. With operational definitions and competencies in the process areas provided by instructional systems being developed by the Northwest Regional Educational Laboratory, educators should be able to greatly improve their efforts to contribute to these ideals of American society.

Human worth can be measured as the individual's capabilities of contributing to his own, and other people's, needs. Such needs for people are both animal and human using Maslow's hierarchical taxonomy. The initial worth of the individual is determined primarily by learning conditions which others provide for him. Evolution to advanced phases of social-psychological self gives the individual growing capability of creating conditions for himself that increase his own worth.

Human dignity can be measured in terms of the individual's awareness, ability and acceptance of responsibility for making choices that create conditions responsible for his worth. A person who has great human worth, all of it developed from conditions that he believes were controlled by others, will lack human dignity. He will be no more than

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a valuable slave unless he has a self capable of recognizing his own behavior as choices and criteria he is using to make choices. It is the awareness of capability and acceptance of responsibility for the meaning of choice in his own behavior as it contributes to increasing and maintaining his human worth that adds human dignity to the individual. According to the theoretical model which has been presented, the capability of recognizing and being responsible for the factor of choice in behavior is a function of self-evolution.

It should be noted here that gaining a personalized understanding of the meaning of choice in one's behavior necessitates opportunities to experience failure, as well as success, in the outcomes that result from one's decisions. If others created conditions for an individual that assured nothing but successes, that individual would not have the opportunity of distinguishing a meaning of choice as it affected outcomes. He would have no basis for establishing the boundaries of his current capabilities. It would be appropriate to help an individual avoid experiences of failure based on lack of his readiness, or lack of relevance of an experience to him. It is, at the same time, critical to his evolution towards achieving a "Creative" self that he have the freedom to experience failures and successes based on his own decision making. Recognition of the distinction between such personally meaningful failure necessary to the evolution of self, as contrasted to the other kinds of failure, is vital to educators who would implement values for human worth, dignity and freedom.

Individual freedom is defined by the two factors of the individual's ability to make choices explicitly and the availability of alternatives from which to choose. To make choices explicitly, the individual

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must evolve to a self where he understands and accepts the meaning of choice in his behavior as it effects his worth and recognizes his criteria for making choices. With this capability for freedom, his society must provide him opportunity to create and maintain a culture that includes explorations of values from which criteria for making choices are developed and alternatives about which he can make choices determining the nature of his self, his life style and the living conditions in his life space. He would then, by definition, be a free human being.

Providing Conditions for Movement Along Developmental Dimensions

Therefore, to realize America's ideals of human worth, human dignity and freedom, it is essential that conditions of learning are provided which move individuals along dimensions of cognitive development, moral development and phases of self-evolution. In one sense, the individual will learn best when conditions congruent with his current cognitive stage, moral stage and phase of self are provided. But, if the conditions that provide for transition to the next phase are not also introduced whenever appropriate, the individual will be inhibited in his evolution of self necessary to achieving ultimate human worth, human dignity and freedom.

In the past, America's public schools' preoccupation with academic achievement has contributed primarily to human worth while inadvertently maintaining many conditions that inhibited self-evolution. With these clearer definitions, educators will be able to provide a better combination of conditions which maintain high academic achievement for human worth along with experiences of decision making and other kinds of self-awareness which provide human dignity and freedom. The increased
creative and destructive capabilities of recent cultural and technological advances in society make such improvement not only possible, but extremely important to the welfare of mankind.78, 79, 80, 81, 82

Some of the instructional systems of our program of Improving Teaching Competencies will deal explicitly with competencies for using Piaget's stages of cognitive development,83 Kohlberg's stages of moral development84 and the phases of self-evolution presented in Diagram I so that teachers, and others, can do a better job of providing learners with relevant experiences. All twenty-four of the instructional systems of this program will be needed to provide the range of competencies necessary to insure that school systems can operate to support the growth of human potential.

Current Needs and Changes of Society

The major characteristic of current American society is change. Toffler's recent book, Future Shock,85 dramatically documents many specific changes and the fact of general social change. Knowledge

81 Rogers, Op. Cit., (66)
is increasing at geometric rates. People travel faster, farther and more often. More things are created, produced and consumed each year. Mass communication media proliferate awarenesses. McLuhan proposes that the medium, itself, has become the message. The behavioral and philosophical referents of the culture adults are experiencing are different from those of the culture they were born into. Our very understanding of the nature of change is being altered.

The Nature of Change. Societies have experienced major changes in past historical periods. Evolutionary cultural and/or technological events have always impinged on the status quo of societies. In Lewinian terms, a society typically unfreezes under such pressure. It alters roles, organizational configurations or societal arrangements to take advantage of, accommodate, insulate or isolate the effects of these events. Then it refreezes into a new status quo for decades or centuries until the next such event occurs. Gunpowder, the compass, Aristotelian logic, concepts of Christian relationships, mass production and digital computers represent such events.

The current period of change is different. Cultural/technological evolution has brought man to a stage of ultimate kinds of creative and destructive capability. For the immediate future, increasing rates of

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change will be continuous. We cannot expect to "refreeze" for decades or centuries into fixed roles, relationships or organizations. This time, people need to achieve a more fundamental kind of change. We must learn to understand life in dynamic, rather than static, ways.\footnote{Lewin's concepts of dynamic, quasi-stationary equilibrium give people much more powerful ways to conceive of, and deal with, the forces in their lives than the more traditional "static" concepts of equilibrium.}

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Some Implications of Current Societal Change. Society in the past needed individuals who could fit its relatively fixed roles and organizations. Society now needs individuals who can move in and out of roles, create new ones, operate organizations which continuously set new kinds of objectives and utilize new kinds of resources. It needs people who can retrieve and utilize changing knowledge to deal with

\begin{footnotesize}
\begin{enumerate}
\item Jung, C., "The Student and the Employer Based Career Education System," Study Area 9, Technical Report 3, Employer Based Career Education Project, Far West Regional Laboratory for Educational Research and Development, Berkeley, California, 1971
\end{enumerate}
\end{footnotesize}
evolving issues and problems. It needs people who can move in and out of relationships without losing the human meanings of relating. It needs human beings to move rapidly along the continuum of their social-psychological self-evolution so as to realize the advantages, and avoid the dangers, of today’s capabilities.

American youth today are fundamentally different than in any era of past history.93 Their philosophical perspective is imbued with the awareness of man’s ultimate creative/destructive capabilities.94 Their perceptions are bombarded with relativistic awarenesses.95 They are thrust into existential dilemmas before having a chance to evolve beyond stereotypic and opinionated selves. They cannot avoid a questioning of values that perplexes their elders. They have more need of help, and receive less help from, adults than any generation in history. There are no adults who grew up in the kind of world which they face.

Between adults and youth, polarized conflicts, confusion and miscommunication tend to occur at a time when the need is for more and better ways of working together to explore these changing meanings of man’s experience.96 There has never been a time when adults could gain more from learning through exposure to the potentially exciting, relativistic perspective of youth. Adults must learn to maintain their


95 Perry, op. cit., (8)

96 Recorded interview with Eva Schindler-Rainman, January 1972.
adulthood while simultaneously entering into a kind of peer relationship with youth in the role of being learners. Adults and youth can learn ways to support each other, each with special attributes to offer, in being learners.

Reactions of Today's Youth. When adult's help is not available, today's youth are reacting with a range of alternatives. Some move ahead in perplexity. Some cop out in drugs or hedonistic efforts to escape their awareness and the responsibilities that it implies.\(^97\) Many are breaking through to more advanced levels of self than past generations have achieved. For example, Perry found that entering Harvard freshmen in 1964 were one stage beyond freshmen of 1958 on the nine stage dimension of his model.\(^98\) Kohlberg's data show that this movement is occurring in cultures such as found in Turkey, Taiwan, and the Yucatan peninsula of Mexico as well as in the United States. The developmental models are definitely valid across cultures. While the substantive orientations of individuals naturally vary, the dynamics are the same.\(^99\) Some glimpse this creative ideal, but demand it from a stereotyped self-orientation. This latter orientation might well characterize today's "Yippie," who demands that everyone "be free" according to some stereotypic definition.

The Value Position of the Program for Developing Instructional Systems to Improve Teaching Competencies. If a free system is to endure (or, more accurately, finally be achieved) then society needs these youth to achieve evolution of a Creative self with its orientation of

\(^{97}\) Nay, Op. Cit., (60)

\(^{98}\) Perry, Op. Cit., (8)

interdependence, shared responsibility and value for pluralism. Our program of Developing Instructional Systems to Improve Teaching Competencies takes the value position of advocating such achievement.

Adults who believe that today's conflicts are essentially the same as those raced in the past contribute to destructive polarizations. Other adults acknowledge change but exhibit a response of immobilized ambivalence which Lippitt suggests is a form of internalized polarization.100 All the usual problems of adolescence are added to by the differences of perspective between stereotypic and opinionated adults attempting to deal with youth who are moving toward existential and creative selves. Such adults not only can't help the youth, they fear them and fight them as they misinterpret their behavior. Kohlberg reports that, while increasing numbers of youth are moving to advanced stages of "moral" development, most teachers are only in stages three or four, and only 10 percent have reached the final sixth stage. He further reports that an individual who stays fixed in a stage for too many years loses the capability of moving to the next stage.101

Lag Time Between Cultural Evolution, Individual Self-Evolution and Societal Transition. This is a time of frightfully difficult societal transition. Culture and technology has achieved ultimate destructive and creative kinds of potential. For the first time in history, large numbers of individuals are evolving to existential and creative selves, while others withdraw into depersonalization which they correspondingly force on those who look to them for support in growth. American society as a whole is on the threshold of moving out of an "opinionated" orientation and into an existential one. It's a once in

100 Lippitt, Op. Cit., (21)
a millenium transition which might result in achieving a new level of creativity in human affairs. The existential society becomes free to transact experiences which open new realms of human potential. But, as with the individual Existential Self, society might self-destruct during such a period of transactional relativism. As we attempt major strides and sometimes appear to fail (e.g., political-economic programs of the "great society") we may lose faith in our potential and create destructive backlashes. There is a "lag time" as the anthropologists would say, between rates of movement on the dimensions of cultural/technological evolution, the self-evolution of individuals, and changes in society. Diagram II illustrates this "lag time."

We might also self-destruct by going on binges of overemphasizing areas of our creative capability. We might exhaust scarce resources in exploring our solar system which should have been reserved for reaching other solar systems. We might keep human concern focused on the conduct of war and build ourselves up before a concern for human relationships could antiquate the need for wars. We might construct kinds of power plants that release irreversible chains of pollution before we know enough to realize what we are doing. These are dangerous, as well as exciting, times. They dictate certain needs that society is only beginning to recognize.

Some Current Needs. Lippitt and Schindler-Rainman speak of a need for greatly increased intrapersonal and interpersonal interactions and linkages. They say individuals need skills, ways to make

103 Schindler-Rainman, Op. Cit., (96)
Diagram II: The Lag Time Between Dimensions of Evolution
action commitments, and ways to relate to their selves which provide a sense of potency in their lives. They note that, beyond achieving awareness of alternative responses, individuals need to gain awareness of how to take advantage of using alternative resources and the awareness of their personal potential for having influence in their world. They include the need for school systems to become more interdependent with all community resources. They join others such as Miles in identifying a need for increased "problem solving adequacy" and increased teamwork versus the tendency toward provincialism and drawing of restrictive boundaries by those who fear change. They agree with Mead in believing that most adults need the security to see themselves as "pilgrims" in this new kind of world who must look toward a kind of "peership" with youth in learning new ways to create meaning in life.

**Needs Society Has for Its Public Schools.** The purpose of a system of public education is to maintain society and assure that each member can gain competencies to achieve a desired role within the limits of his abilities. Considering all that has been presented up to this point from the perspective of the value position taken by our program at the Northwest Regional Educational Laboratory, the following list of needs can be identified that society has for its public schools.

1. Assure that each student achieves those minimal knowledge, skill and attitudinal competencies necessary to become a participating, contributing member of society.

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104 Miles, M., "Planned Change and Organizational Health," in, Change Processes in the Public Schools, Center for the Advanced Study of Educational Administration, University of Oregon, Eugene, Oregon, 1965

105 Mead, op. cit., (9)
2. Individualize learning experiences in terms of readiness so as to maximize efficiency of development of each student's human worth.

3. Provide learning of knowledge and skills that is reasonably up to date.

4. Assure that each student, according to his own abilities and personal style, learns how to be an effective, continuous learner.

5. Personalize learning experiences in terms of relevance so as to contribute to each student's social-psychological self-evolution and achievement of human dignity.

6. Assure that each student becomes aware of, and skillful in, selecting the behaviors he uses to derive personal meaning for what he is learning.

7. Take advantage of technological advances as it is economically feasible to acquire them.

8. Support teachers in flexible use of resources to individualize student learning experiences.

9. Employ management procedures to use resources flexibly according to individualized needs of students.

10. Cooperate with community and home based learning opportunities as complementary to those provided in the school.

11. Be able to include new kinds of objectives in response to changing societal needs and utilize new kinds of resources in response to changing technological opportunities.

12. Use its resources to maximize learning alternatives consonant with economic efficiency so as to contribute to each student's learning the opportunities and responsibilities of human freedom.

13. Be operated by educators who have process competencies that define the "dynamic" human perspective which is the overall outcome their pupils need to achieve.

The Derivation of the Program for Developing Instructional Systems to Improve Teaching Competencies.

Our program for, Developing Instructional Systems to Improve Teaching

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Competencies is derived from the thirteen areas of need which changes in American society and its youth have placed on its system of public education. The first three needs listed demand development efforts beyond the scope of the program. They call for new materials to be produced, and related training provided for educators, as new knowledge and technological resources emerge throughout the foreseeable future. Educators will always need to be learning, and relearning, new knowledge and ways to present it.

The last ten needs listed call for educators to gain competencies in areas of procedural skills that will bring fundamental improvements in the ways schools are operated. Once these process skills are mastered, the educator will not need to be continuously learning in these areas. His school will be able to change to more dynamic operating procedures and to maintain them. There appear to be six areas of these process skills concerning:

I. Ways that teachers can help students to become active, responsible learners.

II. Ways that teachers can interact face to face with pupils to support their learning efforts as making personal meaning out of experience, and recognize their own styles for doing this so that students can be responsible for improving their own efforts.

III. Ways that teachers can use the different problem solving processes appropriate to achieving improvements that are technical, theoretical or philosophical in nature.

IV. Ways that teachers can work interpersonally in teamwork relationships that are effective and efficient.

V. Ways that someone working in or with the school staff can help it achieve organizational functioning which supports use of the other areas of procedural skills. Evidence indicates that such help is essential to the kinds of needs and improvements that have been identified.
VI. Ways that school staffs can plan to use their process competencies, once acquired, to utilize locally available resources to best meet unique local needs and desires.

Diagram III shows how these six areas of process skills were derived from the last ten needs society has for its public schools. Diagram IV lists the instructional systems for each area of process needs which are being developed in the program to make it possible for educators to gain these competencies.

During the past five years, the program staff has conducted extensive reviews of theory, research and practice to identify specific versions of each kind of process for which instructional systems might be created. Many leading social scientists and educational practitioners were contacted directly in this search. Much of this effort has been reported in earlier documents of the Northwest Regional Educational Laboratory. The criteria applied in deciding to work on the twenty-four systems listed are found in the 1968 version of the basic program plans.

Evaluation and Research in a Development Program

Because this program is derived from an operationally defined theory concerning the evolution of social-psychological self of the learner, and from an explicit statement of needs based on an assessment of current changes in society, evaluation and research in the program can be more intensive, varied and relevant than is the case in most educational

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108 Purpose and Potentials, report of the Northwest Regional Educational Laboratory, Portland, Oregon, 1968.

109 Ibid.
1. Student achievement of minimal knowledge, skill and attitudinal competencies
2. Individualize learning in terms of readiness to contribute to human worth
3. Provide learning of knowledge and skills that is reasonably up to date
4. Assure that each student becomes an effective, continuous learner
5. Personalize learning in terms of relevance for self-evolution and human dignity
6. Assure that each student becomes skillful in using behaviors to derive personal meaning
7. Take advantage of technological advances
8. Support teachers in flexible use of resources to individualize student learning
9. Employ management procedures to use
10. Cooperate with community and home-based learning opportunities
11. Be able to include new kinds of objectives and utilize new kinds of resources
12. Use resources to maximize learning alternatives to contribute to human freedom
13. Be operated by educators whose process competencies give them a "dynamic" human perspective

Continuous development of new materials and training as new knowledge and technological resources emerge - outside the scope of Program 100

Teaching for Affective Growth: ways that teachers can help students to become active, responsible learners

Pupil-Teacher Interaction: ways that teachers can interact with pupils to support their making personal meaning out of things they are learning

Objective Analysis and Planned Change: ways that teachers can use the different problem solving processes for technical, theoretical, and philosophical improvements

Interpersonal Relations: ways that teachers can work interpersonally in teamwork relationships that are effective and efficient

Preparing Educational Training Consultants: ways that an appropriate role can help a school staff achieve organizational functioning to support process skills

Education as a System to Support Growth of Human Potential: ways that a school staff can plan to use its resources to meet unique local needs and desires

All six of the above areas of process skills

Diagram III: Derivation of Six Areas of Process Skills From the List of Needs Society Has for Public Schools
<table>
<thead>
<tr>
<th>Teaching For Affective Growth</th>
<th>Pupil-Teacher Interaction</th>
<th>Objective Analysis and Planned Change</th>
<th>Interpersonal Relations</th>
<th>Preparing Educational Trng. Consultants</th>
<th>Education As A System To Support the Growth of Human Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Cross-Age Peer Help</td>
<td>*Systematic and Objective Analysis of Instruction</td>
<td>*System Technology</td>
<td>*Interpersonal Communications</td>
<td>*Skill Training</td>
<td>Schools to Support the Growth of Human Potential</td>
</tr>
<tr>
<td>Aesthetic Aspects of Learning</td>
<td>*Interaction Analysis</td>
<td>*Research Utilizing Problem Solving</td>
<td>*Interpersonal Influence</td>
<td>*Consultation</td>
<td>(76) Assessing Learner Self-Evolution - Followup,</td>
</tr>
<tr>
<td>Interpersonal Explanations in Active Learning</td>
<td>*Higher Level Thought Processes</td>
<td>+Negotiation In Education</td>
<td>(74) Organizational Development (74)</td>
<td></td>
<td>Longitudinal testing to determine overall program effects, (76)</td>
</tr>
<tr>
<td>Providing for Effective Growth</td>
<td>*Inquiry Development</td>
<td>Creative Problem Solving</td>
<td>(75) Organizational Self-Renewal (76)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Teaching Responsively for Individualized Meaning</td>
<td>Educational Problem Solving Assessment (76)</td>
<td>Interpersonal Decision Making (75)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Completed as of November 30, 1972
*Under development as of November 30, 1972

Diagram IV: Six Categories of Instructional Systems Being Developed in the program
development programs. Most programs to develop training resources merely concern themselves with whether their products achieve the specified training outcomes. This is only the first of three kinds of concerns that our program can, and should, deal with. Our program plans to go on to test hypotheses about whether the new competencies achieved as training outcomes result in improved operational procedures of educational systems and improved learner experiences according to the theoretical model. The testing of such hypotheses, representing an explicit value position, will occur as a follow-through longitudinal study to answer the most important question, "What difference does the program for Improving Teaching Competencies make in the lives of students?" Finally, certain data collected in evaluation of product effectiveness, and in the follow-through longitudinal study, should be applied, or reprocessed and analyzed in a form appropriate, to testing some aspects of the underlying theory of learner self-evolution, and subsidiary theories concerning organizational functioning and societal change.

Almost all of the program resources in the evaluation and research area are for evaluation essential to a quality effort of development work. The program is in no sense a research venture. However, it should be noted that this development program has provided a unique, highly productive perspective for generating theoretical insights. This is already established in the theory of self-evolution, an instructional theory arrived at in Teaching Responsively for Individualized Meaning, a theoretical clarification of three kinds of criteria for educational...
improvement that relate to three respective kinds of problem solving, and a theory of organizational growth and maturity.

The translation of certain kinds of evaluative data, necessarily collected for evaluative needs, into forms appropriate for testing some central theoretical hypotheses will greatly increase the overall value of the program's contribution. For very little additional cost, it will greatly increase knowledge about effectiveness. It will also help draw attention of researchers to these areas where more of their resources are needed. Thus, developers will better serve as a feedback linkage from the field to the research community. It is very difficult for developers to have that kind of influence on researchers unless they can use at least a small amount of their own resources to demonstrate the fruitfulness of their lines of theoretical inquiry by doing some hypothesis testing.

Diagram V indicates the relationship between the three kinds of evaluation and research concerns that this program needs to deal with. Diagram VI presents general statements concerning the kinds of training outcomes we evaluate when our instructional systems are used, and hypotheses about resultant outcomes representing improvements in school procedures and learner experiences.

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111 Jung, C., Pino, R., Preparing Educational Training Consultants III: Organizational Development, a multi-media instructional system being developed by the Northwest Regional Educational Laboratory, Portland, Oregon, 1972.
Diagram V: Relationships of Three Kinds of Evaluation Research Concerns
## Diagram VI: Training Outcomes for Each Area of Processes and Hypotheses About Resultant Outcomes Which Represent Improvements in School Procedures and Learner Experiences

<table>
<thead>
<tr>
<th>AREA OF PROCESSES</th>
<th>Teaching for Affective Growth</th>
<th>Pupil-Teacher Interaction</th>
<th>Objective Analysis &amp; Planned Change</th>
<th>Interpersonal Relations</th>
<th>Preparing Educational Training Consultants</th>
<th>Education as a System to Support Growth of Human Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TRAINING OUTCOMES</strong></td>
<td>Teachers will be able to train students to be effective tutors for each other</td>
<td>Teachers will be able to interact with students in such a way as to foster appropriate selection and identification of students</td>
<td>Teachers will be able to use system analysis and synthesis to identify improvement opportunities</td>
<td>Teachers will be able to identify appropriate skill sets</td>
<td>Approximately one percent of educators will be able to identify and appropriately use skills for the improvement of interpersonal communications</td>
<td>School staff will have a conceptual framework for planning and procedures for maximizing the use of locally available resources to meet unique local needs and desires</td>
</tr>
<tr>
<td><strong>HYPOTHESIS ABOUT RESULTANT OUTCOMES</strong></td>
<td>Teachers will be able to include musical, artistic and poetic experiences that are integrated with cognitive learning</td>
<td>Teachers and students will recognize personal styles of choice in their learning behaviors</td>
<td>Teachers will be able to identify phases of student self-education as a guide to providing appropriate learning experiences</td>
<td>Teachers will be able to support student's efforts to derive personal meaning by responding to the student's use of thought processes</td>
<td>Teachers will have a procedure for assessing their professional skills, training needs, and planning strategies to meet these needs</td>
<td>Teachers will have skills to support school procedures in a self-renewing phase of local</td>
</tr>
<tr>
<td><strong>REPRESENTATIVE IMPROVEMENTS IN SCHOOL PROCEDURES &amp; LEARNER EXPERIENCES</strong></td>
<td>Teachers will use their behaviors in a manner responsive to the student's use of thought processes as he is learning</td>
<td>Teachers will become aware of their own use of thought processes to the personal meaning of what he is learning</td>
<td>Students will increase their rate of using thought processes to improve their personal meaning and will increase the effectiveness of their selection and use of thought processes</td>
<td>Less energy of the school personal will be lost in interpersonal misunderstanding and conflict</td>
<td>Hypotheses for the school personal will have a dynamic orientation of using their process skills to continuous, alter roles, procedures and organisational configurations to make best use of resources to meet educational objectives rapidly than striving to maintain a status quo to protect vested interests</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teachers will recognize criteria for each desired interpersonal influence and use real-time feedback to establish realistic interpersonal influence</td>
<td>Teachers will contribute more with greater effect, to administrative efforts to improve school procedures</td>
<td>Teachers will contribute more with greater effect, to administrative efforts to improve school procedures</td>
<td>Trust, innovativeness and morale will improve with consequent increase in productive output</td>
<td>School staff will have skills to support school procedures in a self-renewing phase of local</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Students will increase their rate of using thought processes to improve their personal meaning and will increase the effectiveness of their selection and use of thought processes</td>
<td>Teachers will contribute more with greater effect, to administrative efforts to improve school procedures</td>
<td>Teachers will contribute more with greater effect, to administrative efforts to improve school procedures</td>
<td>Student morale and positive views of school staff will increase with school output</td>
<td>School staff will have skills to support school procedures in a self-renewing phase of local</td>
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**Diagram VI:** Training Outcomes for Each Area of Processes and Hypotheses About Resultant Outcomes Which Represent Improvements in School Procedures and Learner Experiences.
Major Evaluation Needs

A full description of our development procedures, and the place of evaluation and research in them, is beyond the purpose of this paper. Such a description is available elsewhere. We conclude by noting four kinds of major evaluation needs that demand immediate attention.

First, there is great need to direct increased attention and resources to the development of evaluative instruments and methodology. Most existent standardized tests don't come close to getting at the real world variables that must be the concern of educational practitioners. What a student knows as determined by standardized achievement tests is not the same as determining the meaning which that knowledge has to him. What a student is oriented towards as determined by standard aptitude tests is not the same as information indicating how the forms of his interests might change dependent upon the stage of cognitive, moral and "self" development he is at. It is not the same as information that would indicate the kinds of learning experiences from which he could gain the greatest academic achievement, or which would be apt to facilitate or inhibit his cognitive, moral or "self" development.

Kohlberg has a project planned at Harvard University to develop a methodology to assess some of these development variables. We hope to collaborate with him and do some related work at the Northwest Regional Educational Laboratory. We believe that attention to this need does not begin to be adequate at this date. We urge social scientists with methodological expertise to consider making a commitment of their resources in this area.

112 Jung, C., Developing Instructional Systems to Improve Teaching Competencies, Basic Program Plans, Northwest Regional Educational Laboratory, Portland, Oregon, March 1972.
A second kind of major need concerns the focus of evaluation efforts. Stufflebeam and his colleagues have made an excellent contribution in expanding our orientation to the range of variables advocated by their CIPP model. However, even this sophisticated model may be applied in a way that ignores the underlying philosophical issues upon which all evaluation is determined. What do we desire about what we believe human beings can become? The ultimate kinds of creative and destructive capabilities that mankind has achieved make it essential that we address this question explicitly.

It is no longer sufficient for us to evaluate it as good or bad that a particular student has, or has not, achieved a certain competency. We must strive to state why we desire this in relation to operationally defined theoretical models of man's nature and potential, and our value position about that potential. When we make such efforts to be explicit, we will necessarily begin to recognize and deal with some of the most pressing social issues of our times. Such explicitness will help to put scientific inquiry in its proper place in relation to values exploration. It will help to legitimize the interaction of pluralistic differences necessary to the evolution of culture. Negotiation can increasingly replace the conflicts that currently derive from lack of understanding of unarticulated philosophies and value positions. It will enable us not only to determine whether students are learning, but also whether they are becoming the kind of human beings we hope for.

The third major need is for a massive program of training to provide those involved in education with competencies to be involved in educational evolution. This is not simply a matter of training more evaluation

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specialists. The need for more such specialists is pressing, but it is only a small part of the problem. If we believe that they are all that is needed, we will compound and extend the problems of education. We must not let ourselves be lulled into believing that the creation of a corps of such specialists, alone, will meet our evaluation needs in education.

Evaluation is the business of everyone involved in education. Teachers, administrators, students, parents, volunteers and concerned community members all need the skills to be involved. All need capabilities of articulating their philosophies and value positions so that there can be open, objective testing from which all may learn, and so that they can be constructively involved in making their schools a success. The history of slow diffusion of innovations and improvement of American education indicates that, when only a few understand and are involved in the processes of educational evaluation, these processes and their results have little influence. Our program of Developing Instructional Systems to Improve Teaching Competencies at the Northwest Regional Educational Laboratory is attempting to make such training available on a mass dissemination basis. Among others, we are developing training systems to provide competencies in system technology, action research and negotiations. These will give others evaluative skills, appropriate to their roles, which are complementary to those of evaluation specialists.

The fourth kind of need is for teamwork kinds of linkage between different roles and institutions in increasing the amount, and quality, of evaluation in education. Providing training that results in complementary skills for various roles is not enough. There need to be combinations of resources and orientations which can only occur if
planned for and worked at. Our program is working on some training systems that can aid by providing added teamwork skills and ways of improving organizations.

Many different strategies should be attempted to meet this linkage need. The "Research and Instruction Unit" of the Wisconsin R & D Center is one illustration. The leadership the Illinois State Department of Public Instruction is providing in a conference that will bring together researchers and practitioners next fall is another. Jerry Fletcher and John Williamson will present additional exciting and practical illustrations in the second and third papers of this session.

My last point is simply that we cannot expect linkage among roles and institutions for improving educational evaluation to occur by chance. We must work at creating it.