

Thus, the curriculum of the Anisa Model is directly related to character formation, and its goals are what teachers help children accomplish by guiding their interaction with carefully arranged environments so that their potentialities are actualized and structured in ways that equip them ultimately to direct the process of their own becoming.

## TEACHING COMPETENCE: AN ANISA DEFINITION

By DR. MAGDALENE M. CARNEY

Teaching takes part of its definition from one of the central propositions of the Anisa theory of development which maintains that actualization of potentiality is sustained by interaction with the environment. It takes another part of its definition from the Anisa theory of curriculum which sets forth content and process goals and designates the kinds of interactions and the kinds of environments required to accomplish the goals.

If the definition of teaching is logically derived from the above propositions, teaching means arranging environments and guiding the child's interaction in those environments to accomplish educational goals specified by the curriculum. Teaching competence—knowing how to teach—is the conscious ability to arrange environments and to guide interactions which facilitate differentiation, integration, and generalization as they pertain to the various processes in each category of potentiality so that children become competent learners at an optimum rate. Teaching competence also depends on knowing what to teach, i.e., knowledge of content as well as process.

The capacity to facilitate the attainment of learning competence for any child presupposes knowledge about his developmental level pertinent to any process from any category of potentiality. Thus, teaching is necessarily diagnostic. Diagnosis comes from a Greek word which means to know or to distinguish and usually refers to the determination of a disease by examining symptoms. In reference to teaching, it means determining where a child is, developmentally, by examining behavior. The diagnosis should describe the nature of a child's current level of functioning on some process (i.e., classification, seriation, etc.) and his level of knowledge of particular content with a view toward prescribing the arrangement of environments and the kinds of interactions necessary to help him achieve a higher level of development on some objective of the curriculum.

The usefulness of the diagnosis is enhanced if the descriptions made are related to an accumulating body of information which reflects the children's immanence and transcendence. In other words, an accurate diagnosis of developmental levels must include an analysis of aspects of the child's past history which bear on the learning experience at hand and must consider the quality of the ideals which lure him forward. Without a careful diagnosis, a teacher may well

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suppress a child's potential by providing experiences which do not match his developmental level and therefore bore him because there is no challenge, or guarantee his failure because what is required is beyond him.

Children, like fingerprints, are all different and teachers trained to accommodate this verity are skilled diagnosticians who individualize their instruction, thereby guaranteeing that equalization of educational opportunity becomes a reality.

The prescription which follows and is dependent upon diagnosis sets forth what environments are to be arranged in what ways and how a child should interact with them to advance to a sub-goal or the next developmental level. Broadly conceived, the prescription is a plan designed to further the actualization of potentiality and facilitate the assimilation of information as specified in the educational objectives of the curriculum. The actualization of potentiality is sustained by interaction with the environment and guiding that interaction with the appropriate environments constitutes the implementation of the prescription. The appropriateness of the environmental arrangements and the quality of the interaction will determine to a great degree whether or not the prescription works. If the prescription is accurate, the interaction results in the achievement of process and content goals as specified in the curriculum.

After the prescription is implemented, an assessment which is a form of re-diagnosis takes place to ascertain whether or not the interaction based on the prescription resulted in the achievement of the goals being pursued. If the assessment reveals that the prior diagnosis was erroneous, it must also include an analysis of why it was in error and on that basis suggest a new prescription.

Assessment after the implementation of the prescription should indicate the degree to which differentiation, integration, and generalization were achieved pertinent to a goal of the process—curriculum and the amount and accuracy of the retention of information related to the content-curriculum. Assessment of how much and what kind of content has been retained is fairly simple and straightforward compared to assessment of progress in the internalization of process—the “hows” of learning. Much of the long-range research plan of the Anisa project will center around the creation of accurate means of assessing developmental progress. In addition, the assessment should specify the degree to which the environment and the interaction assisted in accomplishing the goals and what adjustments need to be made if they interfered with the attainment of the goals.

Taken together, diagnosis, prescription, implementation of the prescription (arranging environments, guiding the child's interaction with them) and assessment comprise the teaching art. Proficiency in carrying out these functions is the hallmark of a competent teacher.

There are important facets of the above functions which require amplification. When, for example, there is virtually no information available about how to diagnose a child's developmental level on a particular dimension, then speculation guided by theory is the means by which a tentative diagnosis or a decision is made to provide one kind of experience as opposed to another. Speculation comes from the same root word as theory and means to look at, to form a scheme or system of ideas which explains or accounts for diverse phenomena. An apt speculation is legitimate in lieu of more accurate means of obtaining information about a child's developmental level.

A speculative diagnosis suggests that the prescription will be experimental, again a valid procedure in the face of no verified and, therefore predictably successful, learning experience. In order to accommodate the range of rapidly changing developmental needs of children, teachers should be far more experimental in their arrangement of environments and the guidance given in those environments. Whitehead encourages the eternal search for possibilities and that means speculation and experimentation. In Lucien Price's *Dialogues of Alfred North Whitehead*, he says:

I wish I could convey this sense I have of the infinity of the possibilities that confront humanity. The limitless variations of choice, the possibility of novel and untried combinations, the happy turns of experiment, the endless horizons opening out. As long as we experiment, as long we keep this possibility of progressiveness, we and our societies are alive; when we lose them, both we and our societies are dead, no matter how materially prosperous they and we may appear. And nothing is easier to lose than this element of novelty. It is the living principle in thought, which keeps us all alive.

Since the arrangement of an environment is designed to facilitate learning competence, to be maximally effective, it must build upon a child's immanence. This can be achieved by using materials and concepts which are familiar to him—which reflect the culture from which he comes. Otherwise, as William C. Rhodes has said, “the imposition of the content of culture upon the child without relating the culture to his inner substance, is forcing a foreign body into his being. He will only mobilize defenses against the culture in an at-

tempt to neutralize its harsh, abrasive denials of what he is . . ." A competent teacher, then, selects materials and concepts which connect in a non-threatening way with the child's background and level of development. But because the teacher is also interested in the child's transcendence, he gradually introduces novelty in the variety of materials and concepts which appropriately challenges the child and lures him forward. In this way, he insures that the child is never constrained by his culture and its limitations, but can transcend it because he is a competent learner, capable of taking charge of his own destiny—the reward of a self-actualizing human being.

Viewed in this way, the concepts of immanence and transcendence have great importance for successful teaching in multi-cultural, multi-ethnic settings. How to arrange an environment cannot be determined in a vacuum; consideration must be given to what kinds of interaction are needed. A complete discussion of the key concepts of guiding interaction is beyond the scope of this paper. However, the kind of guidance which facilitates learning competence provides appropriate and immediate feedback to a child on tasks which require such knowledge of results. Guidance processes are varied as well as kinds of knowledge of results. The task of a competent teacher is to insure that the quality of the feedback helps the child reach his objective. Eventually, the child learns how to give himself feedback because he has internalized abstract standards of performance to which he can compare his own performance.

The ability to arrange environments and guide interactions which facilitate the development of learning competence in every category of potentiality, as well as achieve content goals, depends in the final analysis upon a teacher's understanding the practical implications of theoretical propositions. In teacher training programs particularly, there appears to be antipathy toward "theory." It is usually posited as an antonym for practice. In reality, it is the conceptual fountain from which practice flows. Without theory and an understanding of its function, practice consists of disjunctive actions prescribed primarily by textbook manuals and by journals of the "how-I-teach-spelling" variety. Without theory, there is no basis for renewal and refinement which leads to the kind of comprehensive accountability education so desperately needs.

The purpose of theory is to set forth propositions about how things work, explanations of how phenomena pertinent to those things are related, and definitions of terms used in the propositions and explanations. Seen in this light, theory indeed guides and enlightens practice. Furthermore, it takes theory to direct observation

and to provide method. Addressing both issues, Whitehead says:

You cannot make an exact determination of the passing phenomena of experience unless you have pre-determined what it is you are going to observe . . . a method is a way of dealing with data.

With theory one can account for what one sees in a given experience and envision how a particular "method" facilitates or inhibits the learning process. Viewing the data presented by a child as he interacts with various environments (the Self, physical, human, unknown) cues the teacher regarding the "method" he should apply in the interest of developing learning competence. Otherwise, implementation of a method without a careful examination of the available data and basing decisions and actions on that information creates dissonance which is certain to suppress rather than release the potential of a child.

Translating the learning competence paradigm of the Anisa Model into classroom practice requires far more than a traditional accumulation of facts. Henry Margenau asserts:

A surface array of facts may contribute knowledge; the very word understanding, however, suggests a stratum beneath that of facts, a stratum where ideas, laws, and principles unify factual experience and inspire it with scientific significance.

The stratum we are anxious to have teachers understand is the functioning of deep structure among psycho-motor, perceptual, cognitive, affective, and volitional processes.

Understanding the interrelationships governing these processes provides a teacher with greater power to know *why* a particular experience has merit or is not appropriate for a given child at a given stage of his development. Such theoretical expertise will also release the potentialities of teachers in ways that enrich the quality of their teaching.

Often, advocates of "the practical" equate whatever is theoretical with being untrue or useless. Charles Hartshorne says that "The first demand of theory is not that it be provable as true, but that, if it were wrong, there would be some hope of finding this out." Because theories allow us to look at old data in new ways, and discover new relationships, their usefulness depends upon the extent to which they are tried out, modified, and refined. Orderly testing and revision of

the Anisa theories is integral to the Model and will help to keep it in the forefront of any educational movement.

The "practical" advocate often raises the question, "Does it work?" It is a reference to theory. As Whitehead said in *Science and Philosophy*, "the aim of practice can only be defined by use of theory."

We see theory and practice wed together in an indissoluble bond, constantly renewing each other and radiating such illumination that the most pessimistic skeptic will be attracted to partake and to sample the efficacy of this enduring relationship.

Albert Einstein and Leopold Infeld, in *The Evolution of Physics*, summarized in a beautiful metaphor the nature of theory and its function.

In our endeavor to understand reality we are somewhat like a man trying to understand the mechanism of a closed watch. He sees the face and the moving hands, even hears its ticking, but he has no way of opening the case. If he is ingenious he may form some picture of a mechanism which could be responsible for all the things he observes, but he may never be quite sure his picture is the only one which could explain his observations. He will never be able to compare his picture with the real mechanism and he cannot even imagine the possibility or the meaning of such a comparison. But he certainly believes that, as his knowledge increases, his picture of reality will become simpler and simpler and will explain a wider and wider range of his sensuous impressions.

What is clarified in this exquisite metaphor is that to relate to something that cannot be seen, one must develop some hypothesis about how and why that something works the way it does. In other words, one must theorize. Since much that concerns how learning takes place cannot be seen, comprehensive theories become practical and consequently essential for teachers.

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## IMPLICATIONS OF THE ANISA THEORY FOR READING INSTRUCTION

By DR. SUSAN S. THEROUX and GEOFFRY W. MARKS

Few issues in elementary education have been the subject of more research, speculation, and controversy than the teaching of reading. For many, a poor grasp of the fundamentals results in the development of bad habits which make the decoding of graphic symbols troublesome and confusing. Repeated failure caused by these bad habits creates frustration and leads to the formation of negative attitudes toward reading which can be transferred to learning in general. This problem—all too common in American public schools—has its source in a lack of a clear, definitive understanding of what the fundamental processes of reading are and how they are ordered developmentally.

As a result, many children are introduced to reading without having mastered the prerequisites. This sets them up for a guaranteed failure in the initial stages, robbing them of the opportunity to acquire the basic skills. If teachers are to give all children an equal opportunity to learn how to read, the task of educational science must be to define reading, to identify the elements which comprise it and the skills required to master them, and to determine the order in which those elements should be introduced to the child. Once this information is available, it is the obligation of teachers to give each child experiences suited to his learning needs which enable him to master those skills that lead to successful reading.

The Anisa theory of development provides the conceptual means for identifying and describing the developmental prerequisites that underlie all aspects of the complex task of learning to read. The theory defines development as the translation of potentiality into actuality and identifies two basic types of potentialities: biological and psychological. Psychological potentialities may be classified further into five categories: perceptual, psychomotor, cognitive, affective, and volitional. Moreover, discrete processes which underlie the attainment of competence in each of these categories have been identified. Many of the processes are essential elements in the complex act of reading.

The theory of development also states that learning is stimulated and sustained by interaction with the environment. Learning is the ability to differentiate, integrate, and generalize experience. When one is able consciously to arrange his own environment and guide