

A Tri-Dimensional Approach to Individualization

Madeline Hunter

Individualized instruction that incorporates the findings from research in human learning and that requires only the elements *present or available to any school*, is the foundation for a powerfully effective three-dimensional model of individualization. This model is independent of budget, materials, and of student-teacher ratio or organization of the school. It is a model that is applicable to any school organization plan or level of schooling (preschool, elementary, secondary, and university), is valid for all content, and is successful with students of any ethnic or socioeconomic derivation.

Individualization is dependent on professional decision making in terms of: (a) the correct level of difficulty for every student, rather than a different task for every student; (b) the appropriate learning behavior of that student in a deliberately arranged environment; and (c) the appropriate behavior of the teacher to facilitate achievement.

This is not to say that an adequate support system is not highly desirable for any program. However, a model that requires organization, time, money, or materials beyond the ability of every school district to supply, cannot be considered to be universally attainable. Consequently, this tri-dimensional model of individualization has been derived from those elements validated as powerful in their effect on learning and as present in or available to every school. It is the orchestration of these elements in consonance with what is currently known about the development of a positive self-concept that contributes to an optimal and artistic teaching-learning environment for the individual student. That orchestration is not the result of wishful thinking or romanticizing, but comes only as the dividend of rigorous and highly sophisticated professional decision making.

This tri-dimensional model of individualiza-



Photos: Joe Di Dio, National Education Association.

tion is not based on any one philosophic orientation. Because the elements that undergird the model are derived from validated research in human learning, those elements can be used to more effectively realize the philosophic goals of any program. While the originators of the model maintain heavy bias in using it to produce a decision-making learner with a valid and positive self-concept, the same model can be used to accelerate learning achievement for any affective, cognitive, psychomotor, or action pattern goal. The philosophic basis of goals to be achieved by the schools will not be discussed in this article, important though that dimension is to education. Instead, this tri-dimensional approach to individualized instruction will be described as an effective way of achieving whatever goals the school and community have determined as being worthy.

There are three research-based assumptions that undergird the national movement toward individualization.

1. *Every student has the potential for learning the next thing beyond that which he/she already knows; therefore, that "next thing" is the area in which learning effort should be focused.* Because students learn at different rates, "the same for everyone" is too difficult for some and too easy for others.

2. *Students use different modes and strategies in learning.* Some students learn best by doing, others by observing; some by listening, others by talking, reading, or seeing the "real thing"; some in small groups, others in larger groups; some with their left brain centers, others with their right brain centers; some are stimulated by friends, others distracted; and so on.

3. *Students need different kinds of assistance from and stimulation by the teacher.* Some students learn best with high levels of concern, others with low; some need prodding, others need support; some need a great deal of praise, others need little; some need few practice opportunities, others a great many; and so on.

From these three assumptions have been derived the three dimensions of an individualized program that takes into account each student's needs in terms of: (a) a task at the correct level of learning difficulty; (b) the learning behavior

and environment that will best enable the student to accomplish the task; and (c) the teaching decisions and actions that will increase his/her efficient and effective learning.

This tri-dimensional model of individualization eliminates the common *erroneous* extrapolations from those three basic assumptions; for individualized instruction *does not* imply that:

- Every student is working by him/herself.
- Every student is doing something different.
- Students learn more by one-to-one teaching.
- A room full of materials, aides, and volunteers is needed.

As a result of these common misunderstandings, some educators and parents have assumed that individualization is a costly organizational scheme that could (and should) be purchased. It is the point of view of the writer that successful individualization is based on professional competency in making and implementing the educational decisions that are relevant to each learner. While material and personnel support are helpful to any program, those factors are secondary in importance to the professional "know-how" of the educator.

What then constitutes the professional competence that enables teachers to individualize or "custom-tailor" instruction so that it incorporates those "educational nutrients" that are derived from research and that increase the probability of efficient and effective learning?

Individualizing the Task

Students learn at different rates. Once this assumption is accepted, organizational schemes that are based on student achievement must be abandoned, for students *continue* to learn at different rates. Consequently, differences must continually be acknowledged and accommodated *within* any group and cannot be organized away by "bluebirds, blackbirds, and buzzards" schemes that assume that all fast learners are equally fast and that slow learners are all slow in the same ways.

Every student has the potential for learning the next thing beyond that which he/she already

knows. This assumption implies that the teacher must have done, or have available, the task analysis of major learning objectives so that each learner's effort can be focused on the point where previous learning leaves off and new learning needs to begin.

This assumption *does not* imply a time consuming and elaborate system of diagnosing and recording, but *does* require quick, general checks of where to begin and then *constant diagnostic vigilance while teaching* to build correction and increased precision into the ongoing learning effort.

Some teachers may use commercial materials to assist in this diagnostic process, but direct observation and interaction with students will produce the diagnostic information that is most



useful in the ongoing daily process of learning.

The *initial* diagnostic process in individualization is probably the most common element in contemporary programs. Generally, however, it is cumbersome, time consuming, and more data are collected and recorded than are needed or can be used. As a result, this process often erodes precious time and energy that could more profitably be directed to *ongoing* diagnosis while teaching and in that way be used to gather the critical diagnostic information that only emerges *while* the student is learning.

Even more important when *only* initial diagnostic techniques are used, the significant diagnostic data needed to implement the other two dimensions of the tri-dimensional model of individualization are often overlooked. This oversight

diminishes by two-thirds the power derived from those other two propellents of successful learning.

Individualizing the Learning Behavior and the Environment

Students use different strategies for learning. Consequently, teachers need to be concerned with three aspects of each student's learning behavior: (a) What strategies does he/she use successfully? (b) What strategies does he/she need to develop or strengthen? (c) What environment will optimize (a) and (b)?

Note that the first two questions imply a dual orientation. As a result, teaching time is not consumed by elaborate tests of a student's best learning modalities, for all modalities need to be developed. With that same ubiquitous, diagnostic vigilance *while teaching*, the teacher who utilizes this second dimension of individualization is monitoring whether each student is "getting it" and changing or adding to the input modalities when a learning snag emerges. Seldom does the sophisticated teacher use a single modality or strategy, for students profit from using modalities in concert. Occasionally, for practice and strengthening, students will use only one, and look *or* listen *or* read *or* draw so diagnostic data emerge that indicate strengths or needs of individual students. On rare occasions, a student can present such a learning puzzle that nothing seems to work. In those infrequent situations, an in-depth diagnosis by a highly skilled professional is indicated.

The student's learning environment can also become an important area where educational decisions must be individualized. Will he/she learn better (not necessarily more comfortably) when he/she is the most able, the least able, or in the middle of the learning group? Should that group be small or large? With friends or less intimate classmates? Under the teacher's watchful eye or independent of the teacher's presence and/or assistance? All of these facets of a student's life-space at school should be taken into account if a program is truly individualized for each student. To have each student working independently is as *un*individualized as to have all students working as a total group.

Individualizing learner behavior and the

learning environment, the second dimension of the tri-dimensional model, emphasizes informal diagnosis and prescription for each student to produce optimal conditions for success. Whether the decisions in this second dimension are made by the teacher and/or the student is also a matter to individualize. To have all decisions made by the teacher, or all decisions made by students, denies the variance in student needs.

Individualizing the Enabling Teaching Decisions and Actions

Students need different kinds of assistance from and stimulation by the teacher. Teacher decision making is the foundation of this tri-dimensional model of individualization. This does not mean, however, that teachers make all decisions. Students must learn to make their own decisions, but students learn best that which they are taught. So even in decision making, instruction must be individualized and identical decision-making responsibility is no more appropriate for all students than are identical reading tasks.

To develop the dimension of enabling teacher behavior, the psychological literature was combed for principles that had been demonstrated as influential in learning and that a teacher could apply in daily instruction. These principles have been grouped in the categories of: (a) those that affect a student's motivation to learn; (b) those that affect the rate and degree of learning; (c) those that increase retention of what has been learned; and (d) those that promote transfer of that learning to new situations.

Successful teachers have been using these principles intuitively, individualizing their application to meet the daily learning needs of each student. Unsuccessful teachers unintentionally have misused the same principles. The tri-dimensional model of individualization articulates these principles so that their adaptation to the needs of each student can be conscious, deliberate, and valid. For example, an important principle of practice is "mass practice with new learning." But how much "massing" does each student need? If Bill does it twice, will he remember it? Tom may need to do it several times, and Ralph may need to practice it again and again for several days or

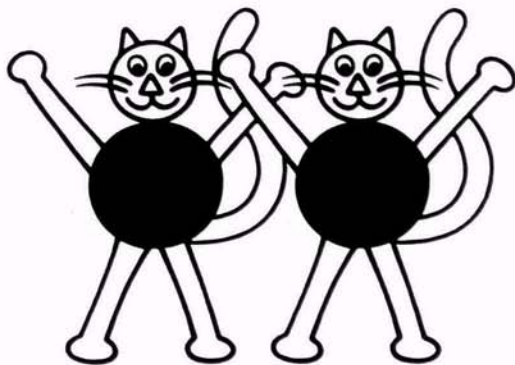
he will not experience success. These types of individualized pedagogical decisions need to be made countless times during the school day. Helping students to make their own learning decisions is also an important educational goal. To achieve that goal, instruction also needs to be individualized in all three dimensions.

Countless examples could be cited of the use of principles of learning in individualization, but one more should suffice. A principle of motivation is that a student's intent to learn is affected by his/her concern about that learning. If the student is unconcerned, no effort will be expended. If he/she is too concerned, psychic energy will be drained off to deal with that concern. Consequently, not as much energy will be available to accomplish the learning task. To individualize the application of this principle, the teacher must make a diagnostic judgment about the student's level of concern and, when indicated, deliberately raise or lower that level to maximize the propulsion from his/her intention to learn. Whether the teacher says, "Let's do it together," or, "That needs to be finished before you leave," should be a deliberate use of a principle of learning in the individualization of instruction.

How does this tri-dimensional model of individualization look in real life? The clues to its presence are not visual. It can be present, or absent, in any school organizational pattern—open or traditional, graded or nongraded, self-contained or team taught. It cannot be evidenced by students working by themselves or in groups, by teachers "teaching" or "facilitating," or by the presence or absence of certain materials or learning strategies. Whether or not individualization is occurring is dependent on *professional decision making* in terms of the determination of: (a) the correct level of difficulty of the learning task for each student, rather than a different task for every student, (b) the appropriate learning behavior of that student in a deliberately arranged environment, and (c) the appropriate behavior of the teacher to facilitate achievement. (At times, the most appropriate teacher behavior may be to do nothing to help! However, this should be a conscious teaching decision, not a blind belief in student independence.)

Consequently, the only element that is essential to the tri-dimensional model of individualized instruction is the *learned* skill of combining

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research-based decision making with a sensitive perception of the student's current needs. The cost is a continuing investment in professional development, from which dividends in increased student learning continue to accrue. Unlike buildings, materials, and programs that wear out or become obsolete, teachers become more valuable as time and money are invested in developing their skills in educational decision making to individualize classroom elements that influence successful learning.

Teachers, the single most influential factor in individualized instruction—and the one factor available in every school—make the most important difference. [E]



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