

## Beyond mastery to something more . . .\*

You must know what you want to hear.  
—EDWIN ZILZ<sup>1</sup>

When poets repair to the enchanted forest of language it is with the express purpose of getting lost; far gone in bewilderment, they seek crossroads of meaning, unexpected echoes, strange encounters; they fear neither detours, surprises, nor darkness.  
—PAUL VALERY<sup>2</sup>

FOR half a century we have been committed to individualized instruction as the answer to the problem of how to teach everybody what everybody needs to know. Yet only now have we been able to put together the elements that will enable us to act on our conviction with the prospect of success.

### Elements of Success

Here are some of these elements:

1. *Goals.* We have revived mastery as a goal. No longer is it possible, politically or professionally, to accommodate our behavior to inequities assumed to be beyond our control. Inside as well as

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<sup>1</sup> *How to Whistle Songs: An Easy, Enjoyable Guide to Beautiful Whistling.* Los Angeles: The Stanton Press, 1961. p. 19.

<sup>2</sup> Jackson Mathews, editor. *The Collected Works of Paul Valery.* Volume 13. *Aesthetics.* Translated by Ralph Manheim. Bollingen Series XLV. New York: Bollingen Foundation. Copyright © 1964. p. 48. By permission of the Bollingen Foundation and Princeton University Press.

## Individualized

around the school, an increasing number of tough-minded persons are demanding that where the road to mastery can be laid down, we must succeed in teaching what there is to be learned.

2. *Nature of the learner.* We now believe that learners start out with much less difference in capacity than we once thought. If at any given point in time learners seem unequal, it means that native capacity has not been properly developed, perhaps that we did not get to some of them early enough, or that we do not yet know how to tap the capacity that is there. At any rate, the idea that capacity is fixed is much in question. Some people are saying, "Don't tell us about their IQ or their home background or anything else. Just tell us what you want them to learn, and leave the rest to us."

# Instruction

**ALEXANDER FRAZIER**

Professor of Education  
The Ohio State University, Columbus

3. *Content analysis.* We know better what to teach. Part of our problem has been that we have sometimes tried to teach what is untrue or incomplete and therefore has been very hard to learn. The more scientific analysis of the nature of knowledge that has come out of the emphasis on its structure is promising to help us identify what is learnable. The teaching of modern language has been revolutionized by the reexamination of content as well as by the redefinition of the goal as mastery. The teaching of mathematics and of science are being similarly affected. As we learn how to put the pieces together again in our competing analyses of beginning reading, we may anticipate that we will be increasingly successful in teaching the first steps of that most complex and mysterious set of learnings.

4. *Materials.* We have discovered how to prepare materials that are much more studyable. These materials are precise and detailed and geared directly to eliciting the responses needed for learning, much more so than anything we would have been able to imagine in the past as possible, necessary, or perhaps desirable. A recent brochure<sup>\*</sup> on 20 programs designed to teach pieces or segments of knowledge describes the reusable booklets as containing "ten short sets of 25-50 frames, each designed to be worked in 15 or 30 minutes." The booklets have been developed in terms of two conditions: "(1) satisfactory terminal behavior (mastery of the subject) and (2) an error rate of less than 10 percent." Topics for which programs are available include "Cells: Their Structure and Function," "Latitude and Longitude," and "Figures of Speech."

5. *Methodology.* We now know how to provide a one-to-one relationship between teacher and pupil. For a long time, we have used as a kind of symbol of individualized instruction the apocryphal image of a student on one end of a log and Mark Hopkins on the other. Now we are faced with the prospect of having a student on one end of the line and, by computer, who knows whom on the other. That part of the problem of individualizing instruction represented by the need for providing a one-to-one correspondence of teacher and learner, however eerie or unearthly or unheavenly their relationship may strike us as likely to be, is resolved.

6. *Evaluation.* We can keep track of independent learning better than before.

\* Coronet Learning Programs. "20 Learning Programs from Coronet." Chicago: Coronet Learning Programs. 4 pp.

One of the chief worries in individualizing instruction has been to find out when help was needed and in general to check on progress among 25 to 30 learners working independently. The new care in spelling out specific objectives; the elaboration of study materials, with built-in feedback of some kind to the learner; and now the computer—all have helped or will help to make the flow of evaluative information not only continuous but, in terms of quantity and precision, more than we can handle. In fact, in some situations, clerks are being employed to manage and control the flow so that it will become most useful.

7. *Organization.* We have solved the problem of organizing for individualized instruction. The matter of grouping learners for individualized instruction has been the one element of the problem above all others to which we have been historically most attentive. We have tried anything and everything. Now, however, we have suddenly found ourselves with a choice of alternatives, partly perhaps because of our inventiveness but also because other elements in the problem have been clarified.

We can organize our pupils in relationship to successive levels of progress through a well-defined sequence of study materials. Or we can organize them in larger units of 100 or so, with an augmented staff and plenty of open space, and leave the internal grouping and scheduling to the teaching staff. Or we can run students through study or learning centers more or less at random, leaving their assignments and supervision to whoever is in charge of their stations. In the latter case, where for a portion of the day the learner is working on his own with programed materials or work-

ing under the tutelage of a remote computer, grouping is merely a question of housing.

### Source of Discomfort

How surprised we are, when we view the present situation in this way, to find that we really have triumphed over the problem of how to teach everybody what they need to know. We can truthfully say that when it comes to the education of the whistler, we know what we want to hear. And we can teach just about anybody to whistle "Yankee Doodle" or "Dixie."

Still, we may wonder at what we have paid or seem willing to pay for the prospect of such success. We know, when we think of the realm in which success is to be expected, that in order to succeed we have altered our conception of what education is all about, limited it, reduced it, fundamentalized it.

Thus, we are at this moment uneasy. To some zealots of the new era, it would seem right and proper that the realm of what everybody needs to know should be extended to everything that anybody might ever want to learn. If we can, they seem to be saying, through the use of this process of instruction, succeed with a piece of the program, why not move ahead to all of it?

Yet, while we may be surprised that anybody would conceive of the total curriculum as lending itself to such treatment, most of us are puzzled by and apprehensive about something much more likely to be hard to accept. We believe we can trust to the general good sense to take care of excesses of zeal in the routinization of teaching. But are we ourselves ready to assume responsibility for redesigning our program to

provide more adequately for the larger aspects of learning that successful routinization of the facts and skills segment is going to give us?

We have had to spend so much time on this segment in the past that we have not done what we would have liked with the rest of the curriculum. Now the prospect of success in teaching the facts and skills means that we will have the time and space to do more with the rest.

What we are faced with, at the prospect of success in individualizing instruction, is the necessity of redeveloping the curriculum. What is involved in this task? The first thing is to clarify the differences between the lesser and the larger learnings in terms of the elements already defined.

*Goals.* For the larger learnings, the goal is not mastery. There is no reachable end-point on the way to which highly specific steps or objectives can be spelled out. Continuous growth is the goal.

*Nature of the learner.* The question of equality of capacity is not central since mastery is not the goal. What is of concern is "an ability, a power . . . the possibility of growth."<sup>4</sup>

*Content analysis.* With the emphasis on the development of powers or their growth, analysis of what needs to be learned is very different here. It is concerned with the nature of the process through which powers develop.

*Materials.* The total environment is of greater concern than any piece of material. The concern is for richness and diversity rather than precision.

<sup>4</sup> John Dewey. *Democracy and Education*. New York: The Macmillan Company, 1916. p. 49.

*Methodology.* Powers are personal. Their growth comes necessarily from individual use. The concern is to provide many opportunities for their responsible exercise.

*Evaluation.* Since growth or "carrying power forward"<sup>5</sup> is the goal, evaluation is concerned with the individual rather than the group and is likely to be seen in global rather than concrete terms.

*Organization.* While room needs to be made to ensure independent functioning, many personal powers require the presence of others in the picture for their proper development. The isolation booth is an inappropriate site for the larger learnings.

Now such a contrast serves to make plain that we are still dealing with individualization of instruction. However, here we talk of the person and of his powers and of their growth. At this point it might be useful if we were to propose two definitions for the individualization of instruction: (a) the individualization of instruction that leads to the achievement of mastery in the lesser learnings; and (b) the individualization of instruction that leads to the development or growth of power in the larger learnings. The former aims at success despite individual differences; the latter aims at success in terms of individual differences, perhaps actually seeking to extend them toward a greater range of human variability, at least in all the generally desired directions or arenas of growth.

But the distinction attempted in these definitions may still strike us as abstract and poorly expressed. What we may

<sup>5</sup> *Ibid.*, p. 61.

need in addition is the exemplification of the larger learnings. If we are going to have to redevelop the curriculum to make good use of the newly vacated time and space, what are we going to be trying to do? The growth of which personal powers are we to try to forward? What is the nature of the realm of the larger learnings?

### Realm of the Larger Learnings

Perhaps what we are moving into now is the education of the poet as compared to the education of the whistler.

"I believe in individuals."<sup>6</sup> This is the way Anton Chekhov responded to a correspondent inquiring about his politics. "I see salvation in a few people living their own private lives," he continued, "scattered throughout Russia—whether they be intellectuals or muzhiks, the power is in them, though they are few." Elsewhere Chekhov, whom we may take to stand for the poet, defined the realm of personal powers: "My holy of holies is the human body, health, intelligence, talent, inspiration, love, and the most absolute freedom—freedom from violence and lying, whatever forms they may take. This is the program I would follow if I were a great artist."<sup>7</sup>

Let us try to say what such larger learnings are, and, with more attention from us, might be.

#### Physical Being

We may begin with the power of physical being. If we had more time and space in the curriculum to attend to

<sup>6</sup> Anton Chekhov. *The Personal Papers of Anton Chekhov*. Introduction by Matthew Josephson. New York: Lear Publishers, Inc., 1948; "Letter to I. I. Orlov, 1899." p. 194-95.

<sup>7</sup> *Ibid.*, "Letter to A. N. Pleshcheyev, October 1889." p. 154.

physical growth and development, what might that mean?

For one thing, it would encompass but go far beyond mastery of skills although skills would certainly be there—skills of walking and running, of throwing and catching, of surfing and sailing, of skiing and hiking and dancing. Information would have its place also, of course—about diet and safety, physical structure and function, drugs and diseases.

But in our enlarged program, much more time and space would be provided for free play, for self-chosen games, dancing, swimming, and gymnastics; and for loafing—for refreshment and relaxation. The environment would be designed for physical functioning and physical freedom all day long—and the school would extend its responsibility to outdoor sites for hiking, camping, pack trips; for visits to the mountains but also to the desert and the beach.

The expanded program would focus on more opportunities for physical development, for enjoying the exercise of physical power and for experiencing the world through the body, including not only the natural world (air breathed in deep, the feel of sun and wind and rain) but the world of other persons—through racing, tagging, wrestling, helping up, forming circles, teaming up, pairing off.

We have never had time really to celebrate the physical powers and their growth and development. Now we well may have.

#### Sensibility

"Experience is never limited, and it is never complete," begins Henry James, in his famous definition of what it means to be fully conscious of one's own existence; "it is an immense sensibility, a

kind of huge spider-web of the finest silken threads suspended in the chamber of consciousness, and catching every air-borne particle in its tissue." This mechanism of sensibility "takes to itself the faintest hints of life, it converts the very pulses of the air into revelations." Such sensibility is "the power to guess the unseen from the seen, to trace the implication of things, to judge the whole piece by the pattern, the condition of feeling life in general so completely that you are well on your way to knowing any particular corner of it. . . ."<sup>8</sup>

Education of the power or powers of sensibility—of responding fully to experience, of being thoroughly conscious of the world about one in all its manifold meanings—incorporates mastery of certain skills and information, it is true. Being able to identify the structure of the cell or the figures of speech may help. But the development of the powers of consciousness and responsiveness necessarily comes through many encounters with rich, raw experience and the chances one has to respond to these encounters, the demands made upon awareness.

The message of Marshall McLuhan is highly relevant here. We live in an image-bearing environment so rank and dense with multi-layered meanings that we must learn to respond to it all at once. Today the school is often less stimulating than the out-of-school environment, more restricted, blander, relatively impoverished.

What would the school look like to the learner if it were designed to be ex-

<sup>8</sup> Morton Dauwen Zabel, editor. *The Portable Henry James*. New York: The Viking Press, 1951; "The Art of Fiction," pp. 401-402.

perienced as were the exhibits of Brussels and of Expo '67?

What kinds of new and specific learnings would be needed if we were to value responsiveness to the broader environment in terms of the visual arts—graphic arts but also sculpture, architecture, landscaping, and town planning? If we were to take films and television seriously? If we wanted to increase awareness and enjoyment of the world of music old and new, eastern as well as western?

If we were to venture deeply into the realms of human awareness outside the arts—the world of feelings and values personally expressed, the verbal and nonverbal clues to feelings and values?

What changes in environment, what additions to specific learnings, the inclusion of what kinds of in- and out-of-school experiences for the exercise and development of sensibility might we have if we were to redesign the curriculum to make use of new time and space for this field of larger learning?

#### Love

How does one learn to love? It is something that can hardly be spelled out, detailed, programmed. Yet the power to emphasize, reach out, relate, identify with, to seek community of some kind in increasingly wider circles is surely among the larger learnings with which we will want to do more as we make good use of our new time and space.

Perhaps love as we are thinking of it begins with simple wonder at and respect for the force of life. Marian Catlin in Wallace Stegner's new novel, *All the Little Live Things*, represents such an aspect of love. Cancer-ridden and preg-

nant, hoping to live to bear another child, she expresses, through her care that nothing living be uprooted or destroyed, an obsession with life, an obsessive love. Her husband, an ethnologist, mentions that the baby California gray whale gains a ton a month, and the narrator wonders: "What in hell is in whale's milk?" Looking back after Marian's death and recalling that metaphor for her agonizing effort to survive with her baby's birth, the narrator supposes her to be saying to him: "You wondered what was in whale's milk. Now you know. Think of the force down there, just telling things to get born, just to be!"<sup>9</sup> The narrator, an old man aroused from what he comes to call a "twilight sleep" of detached retirement, would amend her feeling—but it remains as a symbol of love.

And love extends to and encompasses death as well as birth. In grieving over and reflecting on his mother's death at 80, Sean O'Casey<sup>10</sup> comforts himself by seeing her as having passed into the endless stream.

It wouldn't do to say that each differed from each in some trivial, imperceptible way, blade of grass from blade of grass; leaf of tree from leaf of tree; human face from human face. Who is he who having examined each blade of grass, every leaf of every tree, would say no one of them was like its like? And though human faces might differ, and did, the darkness of hatred, the light of love, the glint of fear, the lightning flash of courage shone the same from every human eye, and the thoughts surrounding

<sup>9</sup> Wallace Stegner. *All the Little Live Things*. New York: The Viking Press, 1967. pp. 66, 344.

<sup>10</sup> Sean O'Casey. *Inishfallen: Fare Thee Well*. New York: The Macmillan Company, 1949. p. 38.

them were, in essence, the same in every human heart.

Between the emergence of life and its extinction or translation lies the great range of occasions for valuing and supporting others and expressing love in its many guises. Is this a field in which our power needs to be extended and strengthened? With time enough and space, what more can be done with love in the redeveloped curriculum?

### *Invention*

For the poet, the power to shape and reshape his experience is that which he needs most of all to test and extend. What Sartre says of the meaning of history, the poet would say of the meaning of life: ". . . the problem is not to know its objective, but to give it one."<sup>11</sup>

While there are specific and lesser learnings that need to be there to be called upon, the development of the power to deal creatively with fresh experience, to search it out (to "seek crossroads of meaning, unexpected echoes, strange encounters") and to work with it (fearing "neither detours, surprises, nor darkness") until it yields a union of form and substance—this kind of development depends on openness to new experience and a great freedom of experiencing. When what is to be known is all laid out for the learner, the power of invention gets little enough exercise.

Providing in the new curriculum more time and space for richer experiencing that will stimulate the learner to alter or amend, compose, design, discover, recast, reorder, shape and reshape his world would seem extremely important.

<sup>11</sup> Jean-Paul Sartre. *Situations*. Translated by Venita Eisler. New York: George Braziller, 1965; "Reply to Albert Camus." p. 103.

### Endurance

Grace Norton, a friend of Henry James, who in his words seemed to "make all the misery of all the world" her own (she "suffered," as they said then), received a letter of consolation from James under the date July 28, 1883:

Sorrow comes in great waves . . . but it rolls over us, and though it may almost smother us it leaves us on the spot, and we know that if it is strong we are stronger, inasmuch as it passes and we remain. It wears us, uses us, but we wear it and use it in return; and it is blind, whereas we after a manner see.<sup>12</sup>

Years later, James wrote to Henry Adams, who had sent him a "melancholy outpouring" of "unmitigated blackness" about their being "lone survivors": "I still find my consciousness interesting—under *cultivation* of the interest." And he suggests that perhaps this survival of interest comes "because I am that queer monster, the artist, an obstinate finality, an inexhaustible sensibility."<sup>13</sup>

Of his reaction to the first-night failure of *The Sea Gull*, Chekhov wrote to a friend: "When I got home I took a dose of castor oil, and had a cold bath, and now I am ready to write another play."<sup>14</sup>

In his account of the San Francisco earthquake, William James,<sup>15</sup> who went into the city from Stanford where he

was spending a few months, remarked on the resilience of the victims, of their "healthy animal insensibility and heartiness."

One of the powers, then, that we know we need to include among the larger learnings is the power to endure. In a television interview with Ernest Jones some years ago, Lionel Trilling asked the aging biographer of Freud how he would summarize the lesson of the master. Jones' reply was this: "To look life straight in the face—and endure it." We might find this message a little bleak ourselves, but we would have to concede that physical being, sensibility or consciousness, love, and shaping and reshaping our experience rest as powers on this rock-bottom hardiness, this power simply to be and to continue to be.

An environment arranged or prepared for learning, an environment ordered for simplicity and certainty toward prescribed ends, a failure-free environment—whatever its uses—may be inadequate for developing fully the power to endure. Much of life "out there" beyond the school or around the school, before and after school, is disarranged and unprepared, disordered and complex and uncertain, formless or littered with discarded forms, ambiguous, full of incongruity, lacking in immediate meanings. To learn to live in this world one needs to be in it, with it, so to speak.

Can we set the school scene for adventures into this world, a world that has to be accepted first to be experienced, has to be endured to be shaped, to be loved, to be responded to, to be physically enjoyed? The education of the poet really begins as he is willing to risk his life, so to speak, in venturing

<sup>12</sup> Zabel, *op. cit.*, p. 650.

<sup>13</sup> *Ibid.*, p. 675.

<sup>14</sup> Chekhov, *op. cit.*, "Letter to A. S. Souvorin, October 22, 1896." p. 173.

<sup>15</sup> William James. *Memories and Studies*. New York: Longmans, Green, and Company, 1912; "On the Mental Effects of the Earthquake." p. 226

into the enchanted forest. Perhaps we can help him develop the power not merely to endure the darkness, the detours, the surprises but even to welcome them as the crossroads of new meanings.

### **A Sense of Urgency**

What we have tried to do here is first to celebrate the prospect of success in individualizing instruction under what we have chosen to call definition (a): the individualization of instruction that leads to the achievement of mastery in the lesser learnings.

Then we have noted that this prospect means that our curriculum will be open to redevelopment. The teaching of facts and skills will occupy less time and space than in the past.

We have proposed that we use this time and space to individualize instruction under definition (b): the individualization of instruction that leads to the development or growth of power in the larger learnings.

We have tried, overgrandly perhaps and certainly too vaguely, to identify some of these powers—the powers of physical being, of responding, of loving, creating, and enduring.

We have tried to imbue our analysis with a sense of urgency. If we do not see and accept the challenge of curriculum redevelopment on some such terms as these, there may be those less broadly based than ourselves who will move into the freed time and space with something or other, probably more and more of less and less. ☞

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