

# MEASUREMENT AND EDUCATIONAL OPPORTUNITY

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In addressing the topic of *Measurement and Educational Opportunity* I am keenly aware that people bring to our discussion divergent conceptions of opportunity, of success, and of how education relates to each of those elusive qualities.

Some people take as a given that at most times, if not all, and in most societies, if not all, the principal function of schooling has been to transmit to children the attitudes and values of the dominant culture and the skills needed to succeed within it.

The transmission of the dominant or majority culture will be identified immediately by some people as basically hostile to opportunity. In this view, opportunity is at an optimum if and when the individual is enabled to develop or unfold as a unique person, not stamped in any cultural mold. Teaching is seen as indoctrination. More efficient teaching, then, is seen as more effective domination of the individual by the majority culture. If "opportunity" means the chance to remain independent of the culture, or even protection against being seduced into it, then teaching will mean a diminution of opportunity, and the better the teaching, the less chance the individual will have to find self-fulfillment.

In my paper, I will build upon a different view of education and of opportunity. I make the working assumption that opportunity means a chance to participate, *if one chooses*, in the intellectual, economic and personal rewards available most readily through mastering the skills such as literacy and numeracy that are important in at least one of the viable cultures that make up the society. Historically, the members of some groups — notably the poor — have seldom had the chance because they have lacked effective instruction in the skills needed to advance within the culture. In this view, education is essential to opportunity, and whatever procedures lead to providing children — especially children of poor families — with the skills that are basic within the culture are procedures that enhance opportunity.

Given this outlook, one must ask a different set of questions about education and the cycle of poverty from one generation to the next.

The first question is not how children of the poor can be shielded from education but rather how they can be helped to achieve as well as the children of the rich.

It has often been held that measurement or testing or assessment serves primarily to reward those whose home circumstances have given them the greatest material advantages and familiarity with the culture. The results of assessment therefore support the more rapid advancement of middle and upper-class children to higher levels of instruction, reinforce the stratification of society, and serve to perpetuate the cycle rather than to break it. This is, in fact, a role that measurement has often played in education. The next question, therefore, is: can we design and apply assessment in education expressly to play the opposite role of breaking rather than reinforcing the cycle of opportunity? How should measurement be used and interpreted if it is to promote opportunity rather than restrict it?

## Student-Centered Assessment

It is clear that a remodelled system of testing, evaluation or assessment, all by itself, cannot guarantee equal attainments by all students. No one suggests that equal experience is going to lead to equal performance in either athletic or academic activities. To begin with, the quality of the teaching and the curriculum are critical. Moreover, the expectations of parents and children and the organization of society exert powerful influences that are slow to change. But the process of change toward the broader attainment of success must begin at several places, and the issue today is how measurement or assessment can contribute to realization by all students of their full potential.

There are, I submit, a few principles in the design and use of assessment in education that can improve substantially the chance of all students to develop their skills as far and as fast as they can and will develop them. I shall use the term "student-centered assessment" to sum up the concept that I shall describe and that I advocate.

Student-centered assessment begins with the assumption or tenet that the aim of education is to shift the locus of planning and effective control of the student's educational choices and life choices to the student. It is to the largest possible assessment of the student, *by* the student, and *for* the student, in the sense that the student participates as far as possible as a knowledgeable participant in the process and in the decisions to be made on the basis of the results.

In a 1976 paper\* entitled "Power to the Person", I noted that the title was not drawn from any social or political movement but rather that it grew "... from the view that education must be person-centered, that the critical choices in education, as in all things, are best made by the individual who has to live with them, and that the results of measurement can and should be used to help learners take charge of their learning and hence of their lives.

"The main job of parents is to make themselves unnecessary, and the main job of the schools is to help develop self-sufficient people . . . The systematic development of a person's ability to manage effectively and exercise his or her individuality. . . [is] . . . a central responsibility of education."

What does this mean specifically? I shall mention two characteristic applications of student-centered assessment: in the classroom, where it is integrated with instruction, and in the guidance process.

Student-centered assessment emphasizes immediate feedback to both the student and the teacher in the classroom in the course of instruction: the "formative evaluation" that Benjamin Bloom has written about in the context of mastery learning. There are two important attributes to this kind of measurement. The first is that it is used to improve learning rather than simply to keep score. The second is that it deals with an immediate follow-up to an observed condition, a short-range action rather than a long-term prediction. I am talking here about diagnosis, area by area, and short-range prescription of instruction related to the next unit of work for which the child is prepared. This integration of measurement with instruction offers great potential for maximizing learning. It provides the way to capitalize on rapid learning by allowing the successful student to keep moving while, for a student who is having difficulty, allowing the detection of problems in skill acquisition early enough to allow their correction.

Contrast this integration of formative evaluation and instruction with the all-too-common pattern employed today in many parts of the United States where minimum competency tests have been introduced shortly prior to the time for graduation from school. The only function such tests can perform is to certify competency or lack of it *ex post facto*. The measurement does little or nothing to help guide or enhance learning. It is the epitome of administration-centered assessment, and directly contrary is the student-centered approach that I believe should be followed.

Let me underscore the short-range nature of the immediate classroom feedback and next assignment that is available through integrating teaching and testing. This

is important. It contrasts sharply with the all-too-common practice of using measurement information as a basis for what are, in effect, long-term predictions. I believe that most of our worst mistakes in the application of measurement arise from assuming that the results form a proper basis for irreversible decisions. Children are dynamic organisms, capable of rapid change and development, responding often in unexpected ways to new experience. For that reason, use of IQ scores, for example, to place children in fast or slow tracks at an early age is generally bad practice for several reasons, but mainly because our school systems typically lack the flexibility to keep up with changes in the child.

It is worthwhile to dwell on this example for a moment, since it illustrates some of the problems inherent in a frequent use (or misuse) of assessment. First, it builds a general tracking procedure — fast or slow, for all subjects — on an overall global measure of IQ, ignoring the fact that abilities and achievements are specific, not general, and students move forward at different rates in different areas of learning. Second, it confuses the observation that the person *has not* yet developed very far or fast with the inference that the person *cannot* develop far or fast given appropriate encouragement and help. As a result, insofar as initial opportunities are unequal and later opportunities are predicated on earlier successes, inequalities are cumulative. Thus the assessment system can be used to reinforce social stratification, especially since early performance is a function of home environment and intellectual stimulation outside of school. And the cycle of poverty continues, with children of people whose opportunities were limited having a hard time breaking into the fast track and the ensuing privileges of further opportunity. The best defense against this pernicious effect is the use of measurement only for short-range decisions as to the next learning task in the same classroom instructional unit, rather than as a basis for generalized placement that quickly rigidifies into tracks that are hard to modify and hence become, *de facto*, long-term assignments.

The same principle of emphasizing short-term rather than long-range predictions applies with even greater force to the other area in which student-centered assessment can contribute to educational opportunity. That area is guidance. Here the principal aim should *not* be to identify for the student, at an early age, his or her best ultimate niche in education or in a career. Rather it should be to help the student plan each successive educational step with a view toward keeping open as many options as possible.

As I wrote in the paper cited earlier\*

"In the past, guidance measures have provided information about a student's aptitudes, interests, and progress to teachers, administrators, counselors, and even parents. We have been less successful in our efforts to provide the student with information he or she wanted, needed, or could use to understand and act upon. Students have tended to see evaluation as a rating system in which they passed or failed. Rarely have they seen

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\* ETS *Annual Report*, Educational Testing Service, 1976.

the evaluation process itself as a learning experience from which they could benefit.

"We must develop measures that will produce information helpful to the person tested — the person who must make the most fundamental decisions about both schooling and career choices. We in the measurement profession have been slow in realizing that the measures students need and want may be different from those that educators require".

Among such measures, surely, will be many that serve no purpose in forecasting future academic career success but have much more to do with the individual's developing interests, values, and aspirations; measures that help young people assess for themselves what they are like and what they are becoming, and in what future lines of activity they may find the greatest personal satisfaction.

Suppose we set out to design a student-centered assessment system for guidance having as its goal the enhancement of self-understanding by students, with the intention of increasing their ability to be "self-actualizing", to take progressively greater responsibility for their own plans. What might be some of the features of such a system?

1. It would be available to the student essentially on demand, rather than at a time and place set by the school or by an external agency.
2. It would be as nearly as possible self-administerable.
3. The student would be given ample opportunity to practice or to re-test himself or herself at will.
4. The results would be private: reported only to the student and to others he or she might specifically designate.
5. The material would cover a variety of student abilities, achievements, interests and values developed both in and out of school.
6. The scores and self-descriptions would be supplemented by a variety of material, perhaps in workbook form, related to the student's planning for both educational and career opportunities.

Such a student-centered program of assessment for self-understanding and guidance could help to ensure that students would be kept aware of their own potential for capitalizing on educational opportunities available to them.

In this paper I have sketched a number of changes in the way we conceptualize design and use measurement that could, if adopted, help to extend educational opportunity to each individual — to break the cycle rather than perpetuate it. To recapitulate briefly, I suggest we do the following:

1. Recognize that people grow at different rates in different skills.
2. Accordingly, measure skills across a broad range, beginning early and integrating the measurement with instruction, as a basis for short-range decisions.
3. Remember that students respond to opportunity, and fling away misguided ambition to indulge in long-term predictions or prescriptions for people.
4. Place the emphasis on formative evaluation, diagnosis and planning of next steps, rather than on certification or summative evaluation.
5. Recognize the importance of non-academic characteristics for planning, self-development and self-fulfillment.
6. Above all, recognize that the aim of education, and of assessment within it, is to shift the locus of planning and of control to the student. The purpose is to teach young people how to learn about themselves and their opportunities and to help them find, organize and interpret the information essential to that learning.

Nothing we can do through measurement will guarantee the fair distribution of rewards to students for their efforts without penalty for starting under handicaps. But a student-centered assessment system of the kind I have just described can play its part. Why not start there?