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ABSTRACT

Vocational education in America has attempted to be the bridge between education and work. The Comprehensive Employment and Training Act (CETA), an example of such a bridge, provides for remedial education in basic skills for training disadvantaged youths and young adults who had not been successful in the educational system. The context of skilled workforce preparation is changing. National changes such as the philosophy of the Reagan administration and its goals, the acceleration of technological change and demographic change, will affect the interface between education and work. The developments may affect the interaction of education and work in the following ways: (1) expansion of career development programs; (2) re-emphasis on the study of mathematics and science; (3) more emphasis on postsecondary technical education with equipment sharing with industry; (4) increased demand for industry training utilizing a teacher-worker exchange; (5) increase in cooperative education; (6) training trust funds negotiated by labor unions; (7) increase of vocational education in rural areas; and (8) expansion of special needs programs. Combined with labor union willingness to build retraining into industry-wide contracts, this represents the opportunity to redefine education and work, or rather to rationalize all of the disconnected pieces into a reasonably smooth continuum.

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RE-THINKING EDUCATION AND WORK  
IN THE UNITED STATES FOR THE 1980's

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RE-THINKING EDUCATION AND WORK IN THE UNITED STATES FOR THE 1980's

Dr. Robert M. Worthington - November, 1981

I wish to take this opportunity to thank the officials of UNESCO and the International Bureau of Education for granting me the privilege of addressing you. I have been following the work of this International Conference on Education for some years, and am well aware of its accomplishments. Yet perhaps the most difficult challenges for educators are still to come.

In considering the topic---"The Interaction Between Education and Work"---I noted first the absence of the term "training." Perhaps this means that we can use the term "education" as including what we ordinarily think of as "training". As a vocational educator for many years, I would have it no other way.

Second, the sharp dichotomy implied by that phrase, "Education and Work", struck me as fast becoming old-fashioned--and, possibly, symptomatic of the problems that our societies have imposed, for too long, on our youths and adults.

The traditional distinction between "education" and "work" is part of our culture--just as much, for example, as the stereotype that little girls must learn to cook, while little boys should not.

While vocational education is the one branch of education that has tried to be the bridge between "education" and "work", it has never been able to overcome the notion that "education" is something that leads to a "position", while "work" is something that one does after being "trained." Vocational education has been, uncomfortably,

straddling this cultural fence for many decades; and will probably continue to do so, for a few years more. Just how long will depend, in part, on us.

Most of the delegates have read much material on the subject in the course of your work including the background paper that we have filed on behalf of the United States. Because of budgetary constraints, funding for our Comprehensive Employment and Training Act (known as CETA) which is administered by the U.S. Department of Labor, is being drastically cut; and some parts--public service employment in particular--are being deleted entirely.

In several respects, CETA provides an illuminating description of the point. I wish to make, as well as a backdrop for changes that are taking place in the United States. First--although this act provides for remedial education in basic skills, it was largely designed as a "rescue" operation for training disadvantaged youths and young adults who had not been successful in the educational system. Up to the present, about seventy billion dollars have been spent for this purpose, most of it in stipends, not on training. This has been an extremely expensive undertaking; and, in the eyes of many expert observers, has had limited success. In the case of one part judged to be successful--the residential "job corps centers"--the cost is still impressive: roughly \$7,500 training cost per student. In comparison, the cost per student, per year, in vocational education averages out to less than a fifth of this.

In no way is this a criticism of the way CETA was designed or operated; rather, it is evidence of the high cost--not only in monetary, but in human terms--of treating in-school education as distinct from the requirements of the workplace. How many of these CETA clients would have avoided their difficulties, and at what saving, had their in-school education been more practically oriented and of a higher quality?

The current public debate in the United States concerning the future of CETA further illustrates how the context of skilled workforce preparation is changing. Although it may, at first, seem paradoxical, the public demand for more practical education

for youth coincides with some doubt as to whether youth employment is still a high priority problem. This is reflective of the following national changes that will strongly affect the interface between education and work:

\* The Philosophy of the Reagan Administration and Its Goal

Those who have become accustomed to major Federal intervention in, and funding of, both education and work programs will need to adapt to a different approach. This administration's top priorities are the fight against inflation and the revitalization of the nation's economy through freeing up more funds for its use. Authority over educational programs is being further decentralized to the States and localities; and, considerably greater reliance for training initiatives will be placed on the private sector--primarily, on to the employer. This argues for an increasingly pluralistic approach to the issues of educator-work relationships and against the likelihood of any "national manpower policy."

\* The Acceleration of Technological Change

In the United States--after a lull of some years--industry and business is again beginning to undergo significant technological change, including the birth of some completely new industries. Job-skills are becoming obsolete at a faster rate, in many occupations. Automated equipment is increasingly displacing the lower-skilled workers as well as some with higher skills. These developments are causing a sharp increase in the demand for higher-level training and retraining programs. In general, occupational competence demands a more comprehensive grounding in mathematics and the sciences.

\* Demographic Change

Under the heading of demographic change, the population and the workforce of the United States are aging. The American population in the age range of 16 to 24 peaked at about 36 million last year--and the U.S. Department of Labor expects that figure to fall by ten percent through 1985, and, by another seven percent by 1990. This shift implies a "seller's market" for youth as a whole, with the remnants of this problem focusing on minority youth--particularly on those with limited English proficiencies.

However, most of the focus of skilled workforce preparation is shifting to the retraining

of adults, including women and older citizens. This new focus is heightened by a trend toward later retirements and the loss of jobs by skilled adult workers because of structural changes in national and international markets. These workers are changing occupations more rapidly and require retraining at more frequent intervals in order to remain productive.

The question now arises--how will these developments affect the interaction of education and work in the United States? In my opinion, the following are highly probable:

1. Elementary and middle schools will greatly strengthen their emphasis on "career development education" with vocational guidance filling the need to relate early educational studies much more closely to the world of work.
2. At the same time, schools and colleges will re-emphasize the importance of mathematics and the sciences, much as previously happened when space exploration began some twenty-five years ago. High-technology employers may well recruit and subsidize promising students of this type. Again, these studies will be promoted and structured according to the needs of the workplace; and, perhaps less so according to the sequences of traditional courses.
3. In response to greater skill requirements, there will be more emphasis placed on technical education in post-secondary institutions and community colleges, with new forms of support from interested businesses and industries--especially in the joint use of expensive equipment.
4. While private employers will increase their own training efforts--particularly in new ways that retain older or retired workers--they will also increasingly see the need for strong publicly supported vocational education as an indispensable source of new entry-level skilled workers; and, similarly, the colleges of science and engineering for highly skilled professionals. Rather than hiring the best professional away from these institutions, private employers and schools and colleges will develop new teacher-worker exchange

programs for their mutual benefit. The whole concept of teacher-education for vocational and technical education will need to be broadened and expanded. The use of communications technology to reach rural, isolated youth and adults must be expedited.

5. Because of economic pressures, vocational institutions at all levels will become much more closely tied to business and industry. Traditional apprenticeship will see a rebirth and cooperative education programs will flourish, but fiscal constraints will necessitate new arrangements and organizations structures. For example: vocational schools, staffed jointly by public and privately employed teachers, will be established at business-industry sites; and--building on the existing models of private industry councils, and industry-education-labor collaboratives--new kinds of public corporations will be created to administer education training with a combination of public and private funds.
6. As is already occurring, labor unions will forego inflationary wage increases and, increasingly, will instead negotiate with management to set up "training trust funds." Periodically returning to school will become viewed as just another aspect of work; and, "lifelong learning", will indeed become a reality of life.
7. Vocational education in rural areas must be given equal attention to that in urbanized economically developed areas. The high productivity of American agriculture is due in large part to the more than 500,000 youth and adults enrolled in vocational agriculture. These programs are based on a daily relationship between in-school education and work in agriculture.
8. Finally, economic needs may well accomplish what social pressures have only begun--achieving equal educational opportunity for special needs populations. In a growing economy, faced with an aging, shrinking work-force, all potential sources of skilled workers must be tapped. New kinds



of programs for the disadvantaged, the handicapped, and the limited English proficient will be created, with strong private-sector backing, to recruit and prepare such students.

If one stands back and views these changes as a group, one common theme emerges: a powerful interweaving of education and work into a single fabric of life for all persons.

The distinction between the two terms--"education" and "work"--has always been somewhat artificial. Now, it is increasingly difficult to tell when or where one begins and the other ends. The advent of minicomputers and other information technology, common both to homes and worksites, will make the two almost identical: education will be applied instantaneously to work; and, work will be accomplished through constant and continuing self-instruction.

Because of these developments, I believe the time has come to redefine these two terms: not only to change expectations of students, but also to make substantive changes in the way educational programs are designed, organized, and offered. I am not suggesting that students in elementary school be paid, in order to stimulate work conditions--although this, too, is being tried--but most programs can be geared to the realities of the workplace; and schools can only benefit from involvement with their communities. Students will benefit from an enhanced ability to make realistic occupational choices, and from being more highly motivated. There no longer need be the difficult transition from school to work; and, the reverse transition, from work back to school, will also be accepted as commonplace.

These ideas are certainly not revolutionary in any sense of the word. Vocational education has, for many years, used the cooperative education mode of instruction. Some entire universities--Northeastern University in Boston, Massachusetts, is one of these--are based on alternating periods of study with periods of paid work, on the job. The University finds it much easier to remain "current", while the student is aided in



financing his or her education.

Yet, I think that many educators still cling to the old notion of education as largely a credentialing or "screening" device--and many students still perceive it as something not too useful that has to be "survived". For these reasons, it will be difficult to make education and work truly part of each other, as opposed to our current pre-occupation with constructing "linkages" or "coordination" for the two.

In the United States, we are now presented with a rare opportunity to make some headway in this matter. While private sector interest and commitment are growing, and responsibility for education is being returned to the individual states, both the Federal Vocational Education Act and the Comprehensive Employment and Training Act are scheduled for review and reauthorization next year. The States and the private sector already have major roles in these two programs--and these roles will be strengthened. Combined with labor-union willingness to build retraining into industry-wide contracts, this represents the opportunity to redefine education and work; or rather to rationalize all of the disconnected pieces into a reasonably smooth continuum--meanwhile, achieving the benefits of a more-flexible, decentralized system.

There are dangers in attempting to compare education from one nation to another, but it seems that many of the more industrialized nations face pressures in the education-and-work arena that are similar to our own. Developing nations find themselves in far different situations, but have an even greater stake in this process; they can hardly afford the luxury of pursuing the same trial-and-error pathways we have pursued.

Consequently, I believe that there is much that we, in the international community, can learn from each other in fusing together education and work toward a better life for all. I pledge our continued, full cooperation in this joint endeavor.

Thank you.