

3. PREPARATION FOR THE WORLD OF WORK

Edwin L. Herr, The Pennsylvania State University

The availability of work in different nations and how children, youth and adults are prepared for the world of work is a fundamental concern in many countries. Knowledge about the structure and availability of work, and the ways people prepare for it, are important issues for both career specialists and policy makers.

Work, Employability and Employment

One complication in talking about preparation for work is that work itself is frequently treated in the professional literature as if the word “work” has a single meaning. This is limited and inaccurate. Work is a complex concept. For example, research on the meaning of work to individuals is done in economic, psychological and sociological contexts. Such studies have demonstrated variability across nations in the centrality of work to individuals, the organization of work and the management or supervision of workers (England, 1990; Super and Sverko, 1995). Also at issue is the content of work. Jobs differ in the amounts and types of psychomotor, interpersonal, general reasoning, academic, and technical or occupation-specific skills required to perform them. The skill profiles define job performance, and they differ across the occupational structure within a nation and, sometimes, across nations. Task analyses of job content are key planning components when developing programs to prepare people for work.

A further complication in preparing for work is that jobs, occupations and careers occur in contexts. When a job is chosen, one also chooses colleagues, role expectations, social status, leisure time availability, continuing education or training requirements, and whether such learning is continuous or episodic, whether the employer or the employee is responsible for such learning, whether one’s use of time is rigidly prescribed or discretionary, and the “work culture,” (i.e., the beliefs and traditions surrounding the work group and the work tasks).

To include all these facets in the preparation for work may not be likely, but recognition that work and the preparation for it require more than specific performance skills is increasingly important. For example, since the late 1960s, federal legislation in the United States has shifted its metaphors from developing a competent person to developing personal competence (Herr, 1974). It has been found in a variety of training situations, that focussing individual preparation on skills training alone is inadequate unless such training also focusses on improved self-confidence, valuing what one is being trained to do, possessing general employability skills (e.g., punctuality,

honesty, reliability, etc.), learning job search skills and clarifying a sense of purpose in work.

These ideas have enlarged the meaning of the term “employability.” In general usage, employability refers to the composite set of traits and skills that permits an individual to meet the demands of the workplace. Employability is the end result of preparation for work. It is the learned capacity of an individual to function in a particular work context. It involves both specific and general employability skills. Specific employability skills relate to the work tasks performed in a particular job. General employability skills encompass the affective mediators that relate to personal willingness to learn new tasks, accept new roles and perform in a co-operative and productive manner. They involve basic academic skills, work habits and attitudes, interpersonal skills, the ability to accept supervision and follow work rules, understanding the work culture, engaging in career planning, job search and access, the ability to use exploratory resources and self-knowledge of strengths and weaknesses. The amount and type of specific or general employability skills included in the preparation for work will differ across jobs and occupations, and will depend on whether the programs are pre-employment or on-the-job training.

Before going further, it is useful to compare employability and employment. These are not the same. Employability is the intended outcome of preparation for work. It signifies that an individual has the *potential* to perform in the workplace. However, because the person is employable does not mean he or she will be employed. Employment means the person has secured a job and is working in a paid capacity for a specified number of hours per week. Employment depends on the availability of jobs. If jobs are not available or if available jobs require different preparation, people may have employability skills, but be unemployed. This is the condition in many parts of the world today as occupational structures and work organizations experience the changes accompanying political and economic transformations.

Influences on Employability and Employment

The immediate stimulus to considering the importance of preparation for work is the growth of a global economy, free trade zones and the pervasive application of technology that drive the economic interdependence of nations. Within this context, there are a large number of trends affecting preparation for the world of work. These include:

- globalization of the work force, a growing global labour surplus and cross-national mobility;
- organizational restructuring in the workplace, producing decreased proportions of permanent employees and increased productivity-cost ratios;

- outsourcing, to specialized firms, of functions that historically were included as permanent parts of a corporate structure and the rise of a contingent work force around the world (i.e., temporary employees whose skills are purchased for limited times and do not have institutional identity or health and pension benefits);
- the pervasive effects of advanced technology on national manufacturing, distribution and financial structures;
- rising importance of the knowledge worker requiring literacy, numeracy, communications and computer literacy skills as prerequisites for employability;
- growing concern in several nations about “career-relevant” schooling and seamless transitions from school to employment;
- concerns in some nations about overeducated work forces and the simultaneous shortages of blue-collar and technician workers; and
- changing demographic trends related to new entrants to the work force, primarily women, persons of colour and immigrants.

Each trend is occurring in different forms in different countries, and they affect the content emphases in the preparation for work for many occupations. But the issue is complicated by the fact that some nations are experiencing continuing high levels of unemployment, and they despair of being able to create sufficient jobs to meet the needs of growing populations. At the beginning of 1994, about 30 percent of the world’s labour force of 820 million people were unemployed or underemployed (International Labor Organization, 1994). The European Commission (1998) indicated that in 1997 the number of unemployed persons in Europe came to about 18 million, representing 10.7 percent of the civilian labour force with over 12 percent in Italy and Finland and almost 20 percent in Spain.

In some nations, changes in the occupational structure are a function of transformations in political and economic systems, for example in Hungary (Ritook, 1993) and other Eastern European nations, in South Africa (Mathabe and Temane, 1993) and the former Soviet Union (Skorikov and Vondracek, 1993). In some of these nations, the recent introduction of western technology and management techniques has introduced new job opportunities, while increasing unemployment and creating increased disparities between the rich and poor.

In other nations, there is a rapid leapfrogging from an agriculturally based economy to flourishing industrial sectors as more developed nations move manufacturing facilities offshore to find less expensive labour and proximity to raw materials while maintaining sophisticated design and distribution procedures in their own nations. There is a dramatic effect on the occupational structure of both the nations that move their operations and the nations that receive them, in terms of the specific jobs available and

the skills needed to do the work. Such cross-national shifts affect how the preparation of workers takes place.

Scholars in Europe and other regions of the world have spoken of the issues and challenges related to new concepts of career. Arnold and Jackson (1997: 428-429) argue that changes in the way work is organized result in new concepts of a career that are qualitatively different from previous notions. Several factors affect how the new notion of career is conceived. In many nations

...the changes taking place in the structure of employment opportunities mean a widening diversity of career patterns and experiences...more and different sorts of career transition will be taking place. One consequence may be that in the future more men will experience the kind of fragmented careers that many women have experienced...more people will be working for small and medium-sized employers, and there will be more people who are self-employed...they highlight the need for lifelong learning and an appropriate strategy for career guidance to support people especially during career transitions.

The nations that shed jobs and move into new corporate environments are often the seedbed for what Hall and associates (1996: 33, 35) call protean careers. According to Hall et al.

...people's careers increasingly will become a succession of "ministages" (or short cycle learning stages) of exploration-trial-mastery-exit, as they move in and out of various product areas, technologies, functions, organizations, and other work environments...this protean form of career involves horizontal growth, expanding one's range of competencies and ways of connecting to work and other people, as opposed to the more traditional vertical growth of success (upward mobility). In the protean form of growth, the goal is learning, psychological success and expansion of the identity. In the more traditional form, the goal was advancement, success and esteem in the eyes of others, and power.

Such conceptions add to the issues that planners for the preparation of work need to consider.

The Preparation for Work

Given the macroeconomic changes occurring in the global economy, the management of its human resources, particularly the preparation of its work force may be the most critical issue for any nation. Nations are increasingly

engaged in economic competition, not military competition, in which the employability and flexibility of the work force is the primary national asset.

Work force development in any nation involves several processes that ideally are complementary, interactive and can be seen as a continuum. Both formal and informal processes influence the perspectives of prospective workers about the accessibility, worthiness, prestige and appropriateness of different classes of work preparation or of types of work itself. Formal refers to the effects of schools and universities, transition services and employers; informal refers to the effects ascribed to parents, mass media and other processes. Informal influences on the preparation of workers filter socio-economic, caste and class perspectives on who should do what work or enter particular forms of preparation. Formal mechanisms are centred in the schools, colleges and universities, in transition services and in the recruitment, induction and training mechanisms used by employers. Transition services bridge these two forms of work force preparation. National approaches to the preparation of workers, to the provision of transition mechanisms and to the formal involvement of employers in work force preparation varies. Embedded in such differences are assumptions about the purposes of education and its relationship to work force preparation, how such purposes differ for specific sub-populations (e.g., college-bound versus employment bound, male versus female, persons with disabilities) and the degree of centralized mandates for certain types of education, as reflected in government policies, legislation and resource commitments.

International Approaches to the Preparation of Workers

The context so far in this paper suggests that the task of preparing workers is no longer simple or confined to specific knowledge boundaries. As nations search for the skills students or adult workers need to be effective in the emerging occupational structure of their nation, they are faced with a range of confounding questions:

- Is it viable to dichotomize curriculum and instruction into academic and vocational? Do these forms of learning need to be integrated so all persons being prepared for work have the basic academic skills that underlie “knowledge work” as well as specific technical skills related to the needs of the occupational structure?
- How does one prepare students and adults for the new career, and for personal career management in uncertain and unstable work environments?
- For what do you prepare workers in environments where there are insufficient jobs to meet the demands of employees? Do you prepare

them to become part of the global labour surplus? For emigration? For cross-national mobility? For government-funded social schemes? For activities and not institutionalized jobs?

- How do you differentiate the roles of schools, colleges and universities, employer-supported occupational training consortiums, and apprenticeships and other work-based learning opportunities? In providing skills and experiences for the preparation of workers, who should be permitted to take what types of work preparation and how are they admitted?
- What types of support services do students or adults need as they consider the selection of particular programs of work preparation?
- What entity or authority should define the skill standards to be achieved in the preparation of workers and how should progress in the preparation for work be assessed?
- What roles do employers have in the preparation of workers?

These are not the only questions that need to be asked nor are they necessarily the right questions. However, suffice it to say that there are differences in answers to these questions based on national philosophies and perspectives on the preparation of workers. Sometimes, these differences are clearly articulated in government policy. Sometimes, they arise from ambiguity and confusion about who should prepare workers and how.

Schools

A dominant issue around the world has to do with national views on the role schooling plays in the preparation of workers. Basic to these views is the reality that skills learned in school and on the job are complementary, and have become the pivotal resource in establishing a nation's competitive edge (Carnevale and Gainer, 1989). Within the education reform movements and national development plans of many nations, there are attempts to make schooling more career relevant. This has involved the infusion of academic subject matter with career development examples and concepts to give learning greater connection to the adult workplace. Many jurisdictions have created decision-making courses and included experiences such as creating individual career development plans. They have introduced required courses on the principles of technology to help students envision the effects of advanced technology in workplaces and have established career resource centres and computerized occupational and information systems in schools. Other initiatives include expanding contacts between schools and the larger community, instituting work study, work shadowing, work experience schemes, enlarging apprenticeship opportunity and

providing placement offices and youth information centers directly in schools (Herr and Cramer, 1996).

Observers examining the educational systems of Europe have contrasted them with those of the United States.

Work as an integral part of life and well being is central to the education provided in these [European] countries. The philosophy is reflected in the curriculum and the pedagogy of the school and of the workplace. Hence, career guidance is begun at an early age. Structured pathways to education and employment are multiple, both divergent and convergent. There is much adding to and subtracting from these approaches as needs and interests dictate (Council of Chief State School Officers, 1991: 6).

One major difference between American approaches to preparing young people for work and those of most European nations is the comprehensive and systematic attention of European nations to the collective responsibility of the population, and of the combined private and public sectors, to prepare youth for employment. This collective responsibility is both in the national interest and a service to youth, as they prepare to assume their economic and social responsibilities.

Aring (1993) has compared the German vocational education system with that of the United States. As she indicates, all education is considered inherently vocational in Germany, and many of the stereotypes and dichotomies inherent in American education are not present in Germany. Since 70 percent of German youth, aged 16 to 19, enter the dual apprenticeship system, it is a formidable aspect of preparation for technical productivity. It is clearly one element of a career ladder for employment-bound individuals who often progress to further technical education after completing the dual apprenticeship system. By one estimate (Marshall and Tucker, 1992), one third of German university-trained engineers came through Germany's apprenticeship system and then attended university, a path that would be virtually impossible for most U.S. engineers. For Aring (1993: 399), there are several salient features of the German vocational education system, including the following:

- The system is called *dual* because students learn in two interconnected settings, the workplace and the school, by means of an interrelated curriculum.
- Because students in the dual system have to meet very high standards of education and skills, educators and employers are willing to give them far more responsibility at a much earlier age than their counterparts in the United States.

- Education and training at the job site are not job specific or entirely company specific. Instead, the emphasis is on socialization and on broad, industry-wide training, so the young person will have maximum job opportunities and mobility within the companies that make up the industry.
- Education and training paths are structured so virtually all young people can pursue further education, enter an occupation with a good future, or change industries and retrain.

Although it is possible to identify national differences in how schools have been instrumental in the preparation of workers, common issues are emerging. Several observations make the point.

Germany and many other European nations have relied heavily on apprenticeships and improved technical training as a way of connecting school-based learning and the requirements of the work place. Apprenticeships have provided an immediate opportunity for students to apply what they are learning in school to what they are learning in the work place. Such an approach has allowed Germany to excel in manufacturing and other technical occupations and to prepare a work force with superior skills in these areas. However, there are emerging signs of discomfort with the degree to which apprenticeships are the most appropriate form of training in economies dominated by information and service occupations (*The Economist*, 1993). There also are concerns about personal traits related to work roles, especially for the large number of unemployed persons. In one view, “the real problem lies not in a lack of job-specific skills but in a surplus of social pathologies — too many people with too little self-discipline, self-respect, and basic education to fit easily into any workplace” (*The Economist*, 1993: 20).

There are growing attempts in some nations to organize the preparation of workers around several broad emphases:

- basic academic skills as fundamental requirements to be able to learn increasingly theoretical and technical occupational skills;
- the integration rather than the dichotomization of academic and vocational skills;
- multiple opportunities to engage in different intensities of work-based learning, e.g., apprenticeships, co-operative education, work-study, technical preparation; and
- the ability to acquire the attitudes and behaviours essential to work adjustment and to managing one’s career.

In some cases, these interacting and necessary elements of the preparation of workers have altered traditional views of the content of vocational education. In the United States and some other nations, vocational

education traditionally focussed on occupation-specific performance skills. Increasingly, such models are considered too narrow, too limited and too prone to early obsolescence. As a result, more comprehensive models have emerged intended to broaden the interrelationships and pathways within vocational education, and between it and other educational experiences.

For example, Lumby and Ping (1998) reported that a major debate in the People's Republic of China and in the United Kingdom centres on the proper preparation for work, particularly as it relates to the skills needed to become an independent learner and learning how to learn. This broadening of the vocational education curriculum from specific occupational skills to a larger range of employability skills is consistent with the decision of the World Bank (King, 1993) to withdraw funding in developing countries from vocationally specific education and redeploy it on education and training that is less likely to become quickly obsolete and more likely to prepare employees with a broader range of skills related to acquiring a wage or becoming self-employed.

In addition to focussing on changes in vocational education and training, it is also possible to consider how to make all schooling more career relevant (Herr, 1995). One model of the school's role in preparing students for work is provided by the U.S. Secretary of Labor's Commission on Achieving Necessary Skills. Its report, *What Work Requires of Schools* (1991), commonly known as the SCANS report, contends that schools should provide five categories of competencies, or workplace know-how, and a three-part foundation of skills and personal qualities. The five competencies include the ability to:

- identify, organize, plan and allocate resources such as time, money, materials and facilities;
- work with others;
- acquire and use information;
- understand complex interrelationships; and
- work with a variety of technologies.

These five competencies rest on the foundation of "what schools must teach": basic skills, higher order skills and the application of selected personal qualities. The SCANS report declares that the five competencies involve a complex interplay with the three elements of the foundation. Together, they are seen as spanning the chasm between school and the workplace.

Transition Services

A further illustration of national differences in the preparation of workers is found in transition services. These perspectives are summarized effectively by the Educational Testing Service (1990: 22):

...most developed countries have highly structured institutional arrangements to help young people make this transition [school to work]; it is not a matter left to chance. Germany does it through the apprenticeship system, combining classroom work and on the job instruction. In Japan the schools themselves select students for referrals to employers, under agreement with employers. In other countries, there is either a strong employment counselling and job placement function within the school system or this function is carried out for the student by a labor authority of some type, working with the schools.

Another example is the sustained role of careers officers housed in the school systems of the United Kingdom, and some other nations, whose responsibilities are to help students bridge the gap between school and employment. In Britain, government policy requires each secondary student to have records of achievement (ROAs) and individual action plans (IAPs). Students and their teachers or counsellors draw up these documents listing achievements as a basis for future planning, and facilitating self-awareness and awareness of potential career alternatives. These activities are incorporated into the government's Technical and Vocational Initiative and extension policy that provides cash-value incentives to school leavers to "buy" vocational training. They are contingent on individual action planning, using a national record of achievement which includes a personal record, an action plan, an assessment record and certificates of national vocational qualifications which acknowledge skills at four performance levels (Law, 1993).

Employers

A final example of national differences in the preparation of workers is the role played by employers. The question arises as to whether employers actually continue the preparation of workers from where schools leave off. One dimension of this pertains to the degree to which employers are involved in job training. For example, in a report to the U.S. Congress (Hilton, 1991), the U.S. Office of Technology Assessment concluded that only a few U.S. firms use training as part of a successful competitive strategy, in contrast to firms in Germany and Japan. Indeed, it has been shown that many U.S. firms fail to pick up where schools leave off. Younger workers ages 16 to 24 receive a disproportionately small share of employer training. Estimates suggest, for example, that German firms invest more than twice as much each year in worker training than their U.S. counterparts and nearly 17 times as much in training per apprentice. Part of the difference in training investment between the United States and Germany has to do with the degree to which German firms pool the costs and the benefits of worker training. In Germany, such pooling is commonplace, as a matter of federal policy and as a matter of negotiation between German

firms and labour unions. This is true, in both large and small firms. Typically, the latter are not involved in such training in the United States.

In Germany, industry associations are also involved in delivering training. As technology advances, apprenticeship has evolved away from “learning by doing” to more theoretical training. Large firms have training centres where apprentices spend much of their time with instructors, especially during the first two years. Smaller firms, which rely more heavily on apprentices for daily production, send their trainees for a few weeks at a time to area training centres, administered and partially financed by their local Chamber of Commerce and industry, or Chamber of Artisans. The German federal government encourages such centres, by contributing about half of their costs. Training advisers oversee apprenticeships and advise firms on strategies for further training.

It must be noted that a variety of nations are pursuing training systems to help ensure international competitiveness and raise living standards. For example:

[S]kill intensive Singapore obliges big companies to set up training systems, then measures their success. The French, in response to Germany’s ability to produce skilled workers, have made a sustained attempt to improve their vocational education. In its most recent budget, the British government unveiled a scheme for reintroducing apprenticeships...other British spokespersons on the economy are advocating creation of a “university for industry,” which would link workers and trainers electronically in a sort of permanent technology seminar (*The Economist*, 1993: 20).

Policy Issues

This examination of influences, purposes and mechanisms related to the preparation for work suggests several policy issues. They include:

- To what degree should the preparation for work be centralized in national policy that governs pre-employment training and on-the-job training or decentralized to local government units or individual providers of education and training?
- How should a nation’s policies reflect three major questions related to work force competencies:
 - In *structural terms*, who will deliver what competencies, when and how?
 - In *conceptual terms*, what is the content to be included and reinforced in pre-employment preparatory programs and on-the-job training?
 - In *economic terms*, who will pay the bill?

- How should a nation's policies reflect differences in the preparation for work as it pertains to school students, university students, young adults in work and part-time education, mid-career changers, unemployed and underemployed persons, those at the point of pre-retirement and pensioners?
- How should a nation's policies incorporate career guidance and related career services as integral to the preparation for work? How should the training of counsellors be organized to equip them to support the preparation of workers?
- How should national policies reinforce employer involvement in:
 - pre-employment preparation for work and transition mechanisms, as well as on-the-job training;
 - the sharing of information on specific training needs and changing competencies required of workers; and
 - the provision of financial support for regional training centres to augment school-based activity?
- How should government policy support the use of multiple media by which to present information on a changing occupational structure and on opportunities for the preparation for work?
- Should government policies reflect specific requirements designed to ensure that every school leaver receives placement into a job or into a transition process at the end of compulsory school attendance? If so, by what means?
- Should a comprehensive national training policy be forged that is designed to avoid structural mismatches in employability and employment? Should such a policy co-ordinate the delivery of training across public and private sectors, formal education and in-firm settings, pre-employment and on-the-job training?
- How can national policies identify mechanisms to diagnose training problems and assist in their remediation?
- Should national policies be committed to developing information systems, using the Internet or other mechanisms, that inform educators of changing skill and employability requirements? Should systems be developed for individuals seeking work that contain sufficiently fine-tuned information about needs and opportunities that they permit individual planning to be as effective as it might be?

References

- Aring, M.K. (1993). "What the 'V' word is costing American's economy." *Phi Delta Kappan*, 74: 396-404.
- Arnold, J. and C. Jackson. (1997). "The new career: Issues and challenges." *British Journal of Guidance and Counselling*, 25: 427-434.
- Carnevale, A.P. and L.J. Gainer. (1989). *The learning enterprise*. Washington, D.C.: U.S. Department of Labor/The American Society for Training and Development.
- Council of Chief State School Officers. (1991). *European lessons from school and the workplace*. Washington, DC: Council of Chief State School Officers.
- The Economist*. (August 28, 1993). "Getting Europe back to work." 328 (7826): 43-44.
- Educational Testing Service. (1990). *From school to work*. Princeton, NJ: Educational Testing Service.
- England, G.W. (1990). "The patterning of work meanings which are coterminous with outcome levels for individuals in Japan, Germany, and the U.S.A." *Applied Psychology: An International Review*. 39(1): 29-45.
- European Commission. (1998). *European economy*. No. 65. Brussels, Belgium: European Commission.
- Hall, D.T. and Associates (Eds.). (1996). *The career is dead—long live the career. A relational approach to careers*. San Francisco: Jossey-Bass.
- Herr, E.L. (Ed.). (1974). *Vocational guidance and human development*. Boston: Houghton Mifflin.
- Herr, E.L. (1995). *Counseling employment bound youth*. Greensboro, NC: ERIC/CASS, CAPS Publication.
- Herr, E.L. and S.H. Cramer. (1996). *Career guidance and counseling through the life span: Systematic approaches*. Fifth edition. New York: HarperCollins.
- Hilton, M. (1991). "Shared training: Learning from Germany." *Monthly Labor Review*. 114(3): 33-37.
- International Labour Organization. (1994). *World labour report*. Geneva, Switzerland: International Labour Organization.

- King, K. (1993). "Technical and vocational education and training in an international context." *The Vocational Aspect of Education*. 45, 201-216.
- Law, B. (1993). "Understanding career work." *Career Development Quarterly*, 41: 297-313.
- Lumby, J. and L.Y. Ping. (1998). "Managing vocational education in China." *Journal of Comparative Education*. 28: 197-206.
- Marshall, R. and M. Tucker. (1992). "The best imports from Japan and Germany." *Washington Post National Weekly Edition*. November 9-15, p. 24.
- Mathabe, N.R. and M.A. Temane. (1993). "The realities and imperatives of career counselling for a developing South Africa." *Journal of Career Development*. 20: 25-32.
- Ritook, M. (1993). "Career development in Hungary at the beginning of the 90s." *Journal of Career Development*. 20: 33-40.
- Skorikov, V. and F. Vondracek. (1993). "Career development in the commonwealth of independent states." *Career Development Quarterly*. 44: 314-329.
- Super, D.E. and B. Sverko. (1995). *Life roles, values, and careers. International findings of the work importance study*. San Francisco: Jossey-Bass.
- U. S. Secretary of Labor's Commission on Achieving Necessary Skills. (1991). *What Work Requires of Schools*. Washington: U. S. Secretary of Labor's Commission on Achieving Necessary Skills. June.