Education Reform

Opportunities for Improving Transition from School to Work

Dennis Sandow, BS
Research Assistant

Lee Darling, MA
Office Specialist
Specialized Training Program
University of Oregon
Eugene, Oregon

Robert Stalick, PhD
Kathy Schrock, Vol Admin Cert
Miriam Gapen, MS
Albany Public Schools
Albany, Oregon

Kathy Bloom, MS
Wacker Siltronic Corporation
Portland, Oregon

Most students leaving high school do not go on to college. For them, there is no educational strategy that results in high-skill, high-wage jobs. Instead, they go on to low-skill, low-wage occupations. Education reform is based on coordinating our educational and social needs with our economic needs and focusing on high-skill development, thus resulting in high wages for graduating students. As this new paradigm evolves, an opportunity exists to eliminate the separation between special education and regular education. This article offers strategies to increase the ties between school and business for all students leaving high school but not going on to college.

Schools in the United States are undergoing fundamental changes in defining their purpose and role (Eisner, 1991; National Association of State Boards of Education, 1992; Sailor, Gee and Karasoff, 1993; U.S. Department of Education, 1992). Change is driven by growing school dropout rates (MacMillan et al., 1990), increasing dissatisfaction with entry-level skills of graduates entering the work force (Wehman, 1992), and technological changes that require different types of work force skills (Fuchsberg, 1990). For students with disabilities, the problem is extreme: dropout rates exceed 25% (MacMillan et al., 1992) and unemployment and underemployment exceed 75% (Akabas et al., 1992).

Reform efforts to address these challenges have broad support (Commission on the Skills of the American Workforce, 1990). The themes and activities of these education reforms are creating opportunities for educators, rehabilitation counselors, and others involved in school-to-work transition to create new and important relationships between business and schools and prepare young adults who are not college bound to contribute in the workplace.

However, there are as yet no guarantees that youth with disabilities will be included in partnerships with business or in emerging work force training initiatives. Educators and rehabilitation professionals must join with their community businesses to ensure equal participation for this group.

This article describes the findings of a team of business people and educators, the purpose of which was to define activities to strengthen school-business ties for the transition of people with disabilities from school to adult life.

BACKGROUND

As state budget crises emerge across the nation, there is increased competition among educational

J Vocat Rehabil 1993; 3(4):58–69

and social services for resources. One result is that resources for transition and employment services for people with disabilities are not keeping pace with the demand, and in fact are diminishing in many states (e.g., Toews, 1992). Economic indications are that available public funds will continue to shrink, reducing publicly funded support for citizens with disabilities even further.

In addition, changes are happening in and around the workplace, with initiatives underway aimed at major restructuring of the manner in which work force training occurs, both in the public school system and throughout the private sector (Carnegie Council on Adolescent Development, 1989). This restructuring is influencing the preparedness of the entire work force, a theme addressed in other articles of this issue of the *Journal of Vocational Rehabilitation*. For schools, one of the most immediate changes is a new emphasis on school-business partnerships to establish apprenticeships and internships in business for students still in school. This emphasis concerns developing connections among different segments of the community including families, schools, social organizations, and businesses.

How this and other factors will affect employment for people with disabilities remains to be seen. The research leading to and following national transition, supported employment, and vocational education initiatives shows that employees with severe disabilities cannot typically be expected to succeed in finding and keeping good jobs without support. The transition from school to work for students with developmental disabilities in particular has been heavily influenced by the adult services that have been available to graduating students. For students with severe disabilities, there has been a progression of four paradigms of vocational service: sheltered employment, sheltered activity, supported employment, and most recently, an expectation of support from coworkers.

Sheltered employment was created when students with rather mild disabilities making the transition from school to work were trained to perform paid and "simulated" work tasks in sheltered workshops and work activity centers. For the most part, these tasks represented the vocational service curriculum. Usually these tasks were subcontracted from a local employer and performed in a sheltered setting. This remains the predominant service mode.

Sheltered activity services were created when sheltered employment failed to address service needs of people with more severe disabilities (Bellamy et al., 1986). Recreational, leisure, academic, and living skill training in segregated settings was established to prepare people for eventual work in sheltered employment, and for a few, competitive employment, thus creating a continuum for people to move through progressively. The purpose of these services was to offer a wide range of training and experiences for adults with developmental disabilities. Because the services were offered in segregated settings, people with disabilities had little opportunity to interact with others without disabilities who were the same age or engage in age-appropriate activities.

Supported employment, the third service paradigm, was intended to guarantee immediate community work, even to those previously denied sheltered employment, by providing professional supports in the workplace that had previously only been available in sheltered environments. Supported employment has been heralded for its successes in generating a new level of service outcomes for many thousands of individuals nationally. But this opportunity is still available only to a relatively few people with disabilities, with wages and hours of work that would not lift people out of poverty (U.S. Department of Education, 1991; Wehman, Kregel, and Shafer, 1989).

Whereas the previous paradigms all had the characteristic of being dominated by professional caregivers, the final service paradigm — coworker support — represents a shift of support from job coach professionals to business coworkers and supervisors. In a coworker-supported system, vocational service professionals support the company and its employees rather than the employee with disabilities. A growing body of research and demonstration reports support the effectiveness of these shifting roles across different industries and types of disability (Anderson and Andrews, 1990; Fabian and Luecking, 1991; Mank, Rhodes, and

Sandow, 1991; Nisbet, 1992; Rhodes, Sandow, and Yan, 1992).

Use of employers to recruit, hire, and support employees with disabilities parallels school and work force reform themes. Support drawn from coworkers in the typical work environment requires decentralization of authority and responsibility, with judgments made by people who are not professionals but have knowledge about the work to be done and the work culture in which it is done. Professionals such as teachers make their specific expertise available to the work environment as needed. These changes call for a shift both in the roles and attitudes of vocational educators as partnerships are formed to tackle the problems of community-based vocational training and employment.

ACTIVITIES INCREASING LINKAGES BETWEEN SCHOOLS AND BUSINESS

In 1991, the Oregon legislature passed a law implementing the recommendations of the Commission on the Skills of the American Workforce (1990). Among other features, this reform legislation established policy requiring parental involvement in schools, provided for learning centers within the community, and focused on school-business partnerships to improve vocational preparedness. The significance for special education is that it focuses on developing a new approach for the 56% of students who leave school and do not go on to college (Bernstein et al., 1992). Two ideas for building partnerships between schools, students, and businesses are internships and apprenticeships.

In settings that include people with disabilities, social ties between workers with and without disabilities are extremely important. These ties result in support networks, expanding relationships, and company accommodations for individual differences. A strategy that builds the capacity of business to support students with disabilities is most likely to result in increased social relations between students with disabilities and business employees. Internships and apprenticeships are educational approaches that can facilitate this social process.

Apprenticeships

One way for students to learn more work skills and businesses to learn more about students is to establish youth apprenticeships in business. Youth apprenticeships allow skilled employees to teach new work skills to students while on the job (Filipczak, 1992). This also gives students who are not pursuing a college degree motivation to do well in school and leave school with the promise of a good job. However, apprenticeships in the United States need to be redesigned if they are to be a significant school experience for students, because they are currently controlled by unions for postschool-age people. According to the Office of Work-Based Learning (1992), an apprenticeship is a training strategy that

- combines supervised, structured on-the-job training with classroom training and is sponsored by employers or labor/management groups.
- prepares people for skilled employment by conducting training in bona fide and documented employment settings, with the content of training defined and dictated by the needs of industry
- involves requirements that are clearly delineated by federal and state laws
- leads, by virtue of the legal contract, to a certificate of completion and official journeyperson status
- involves a tangible and generally sizable investment on the part of the employer;
- pays wages to its participants at least during on-the-job training
- teaches participants by having them work directly under the supervision and tutelage of masters
- involves a written agreement and implicit social obligation between the program sponsor and the apprentice.

Internships

The underlying strategy in Oregon's education reform effort is to more closely coordinate social

needs with economic needs (Noble, 1992). Much like the current trend toward natural support of workers with developmental disabilities, Oregon's new education strategy brings educators into the workplace so they may develop curricula that best prepare students for high-skilled jobs in business. By participating in internships in business, teachers accomplish two important objectives. First, they become much more familiar with the businesses in their communities. This typically results in long-term relationships, which become valuable for both the school and the business. Second, by becoming "immersed" in business, the teachers can improve their curricula to teach students the requirements of the workplace.

In a summer industry internship program, 18 teachers found that they widened their circle of colleagues by working with local industry representatives and professionals. They also found value in adapting teaching methods to include more cooperative learning, open-ended problem solving, writing, and use of technology to prepare students for careers in business and industry. Additionally, they became aware that students need more opportunity to participate in teamwork in the classroom (Farrel, 1992).

In 1992, the University of Oregon and Multnomah Education Service District participated in a 40-hour internship in a large manufacturing firm. The company planned the internship as it would any educator's internship, not making any distinction between regular and special education. The interns discovered employees who had specific interest in students with disabilities. These employees expressed an interest in participating in company decisions designed to include such students in their school-business partnership program.

In a debriefing, the interns identified both the accomplishments and measures related to these internships. These are briefly outlined below.

Accomplishment 1: Learn New Technologies in the Workplace

The way work is done is constantly changing. One significant internship accomplishment was learning about the use of new technologies in the workplace, such as the importance of computers. Through observations and interviews with employees, the interns identified the materials, tools, and processes that make up the technology in the workplace.

Identify jobs students with disabilities can do. Although the technology was new to the interns, they were able to identify jobs and tasks that students with disabilities could learn. This occurred in two ways. First, the interns observed tasks they felt could be taught to students with disabilities. Second, they met employees who identified tasks they thought students with disabilities could learn.

Accomplishment 2: Understand the Hiring Process

A discrepancy exists between the way in which businesses typically recruit and hire workers and the way in which schools and human services try to provide jobs for the people they serve (see Sandow, Olson, and Yan, this issue). Job development practices of education and human services have created practices that leave the people they serve "outside" of the typical employment process. An important principle in developing new relationships with businesses is to understand and respect their existing processes for managing human resources. Changes to this system should be invited by business, not created by education or human services.

Identify the company selection criteria. An important feature of the hiring process is the set of selection criteria companies use for screening new employees. These selection criteria must be examined to determine their effects on employing people with disabilities. If the effects are negative, opportunities can be created for companies to discuss possible alternatives.

Gain an appreciation for learning curves. Seldom do companies hire employees who are ready to immediately contribute to productivity. The time during which an employee increases his or her productive contribution at a new job is called the learning curve. During internship, teachers discover the typical learning curve for many jobs.

Accomplishment 3: Understand the Company Culture

The way a business combines material, financial, and human resources to be a productive force in the market is demonstrated through the culture of the organization; this was an important focus of the interns. Organizations may prefer a culture of equality based on team building and evidenced through the development of self-directed work teams. Other organizations may prefer an approach to business that optimizes the reporting lines in a hierarchy.

Identify the company training capacity and process. Training in business is a critical strategy for companies. The interns identified much information about the capacity of the business to train and educate its employees. Once this is analyzed, it is easy to determine whether the business has the capacity to teach students new skills. Without determining the capacity of a business to teach new skills to students, there is a risk of dumping students into the workplace without any support.

Identify high-paying and highly valued jobs. Internships offer the potential of identifying high-skill/high-wage jobs. The interns were able to identify many valued jobs by the length and nature of their internship. An internship focuses not on the immediate acquisition of a job, but on new linkages between teachers, students, and businesses, which increase the likelihood that the student leaves school on the job track desired. It would be irresponsible to suggest that only entry-level jobs or fast food, janitorial, or landscaping jobs are desired by students. An important function of the internship is to identify the jobs that are likely to be valued both by students and by other employees.

Study the quality-improvement program. The interns studied the methods used to ensure a quality product or service. Their belief was that identifying not only quality-improvement methods but also the way that employees communicate quality issues would be very important in developing curriculum and in potential work experiences.

Influence employee values and attitudes. The interns found that they were positively influencing employees' values and attitudes about disability during the internship. This seemed unavoidable and very desirable. Many in business feel that educators and human service professionals focus on the limitations of an individual with disabilities (Libowsky and Turner, 1992; Bloom, this issue). An intern's influence can be very positive if he or she

- maintains respect for the business and employees
- maintains a passion for learning about the business
- answers questions from employees regarding disability in ways that avoid negative sterotypes by accentuating ability rather than disability
- maintains a clear expectation that the business decisions regarding curricula and work experience will be of tremendous value to intern and students.

Develop next steps for including students with disabilities in company partnership programs. The internship should conclude with a clear expectation of the next steps regarding the school-business partnership. For special educators, this should minimally be an agreement that all students be included in the existing school-business partnership regardless of ability.

Accomplishment 4: Establish a Foundation for Future Collaboration

Even in companies that assume responsibility for supporting employees with disabilities, professional involvement is still important. This involvement is spelled out through openly discussing future collaboration between business and education. The collaboration begins during the internship and leads rapidly to vital relationships between school and business that are anticipated to grow over time.

Internships will result in the creation of opportunities for students with disabilities to participate in existing school-business partnerships. The interns in our example met employees with varying levels of interest in assisting students with disabilities. Interest ranged from little or none to active planning and decision making on how the partner-

ship can be improved. Influencing employee values and attitudes and developing next steps through internships are accomplishments that shift decision-making authority from professionals to company employees.

Measures of Internship Accomplishments

Some of the measures that serve as good indicators of internship accomplishments include the number and variety of

- businesses visiting schools
- students shadowing employees during work
- student apprenticeships
- students with disabilities included in all aspects of partnerships
- new friends, skills, and connections of students as a result of internships
- variety of student experiences
- range of choices for students
- apprenticeships leading to high-paying jobs
- connections with business
- students leaving school with paid jobs

Additional Activities to Build a Connection between Students and Employers

Internships and apprenticeships reflect specific strategies to increase ties between students with disabilities and companies. There are many other strategies that may result in increased social ties between students and local business. Strategies resulting in expansion of an individual social network and social ties with business employees are particularly needed. In 1992, staff from Albany Public School District, the University of Oregon, Oregon Freeze Dried, Inc., and Wacker Siltronic Corporation met to discuss employment of people with disabilities who have no professional support, the implementation of education reform legislation in Albany Public Schools, and research related to the nature of coworker support for employees with disabilities. The content of these meetings has been included throughout this article. The meetings resulted in a list of activities that can increase social ties between students and employers.

Organize the classroom around total quality management. The following features describe classrooms that are adopting total quality management strategies:

- There is constant improvement of the school-business partnership.
- Business and students are seen as customers of education.
- Data, facts, and analysis are used to make decisions.
- Barriers between departments (i.e., special education vs. regular education) are eliminated.
- Decision-making authority is transferred from top management to students, teachers, and business employees.

Use the Saturday Academy model. The Saturday Academy is a program in which business and industry provide sites and training for students who are interested in learning more about numerous topics not covered in school. Typically, these classes occur on Saturdays, but increasingly, summer programs are available for high school students to pursue in-depth worksite experiences. Students who participate in the summers are chosen through an application process and receive payment for their work.

Use the Junior Achievement model. Junior Achievement is a national program usually funded by local businesses. Typically, Junior Achievement groups meet in middle schools and provide students with the opportunity to establish a business, develop and manufacture a product, market the product, sell shares, pay dividends, and liquidate the company. It is a real-life simulated business experience and very "hands-on."

Include employers on advisory committee. A simple way to continually improve the quality of the school-business partnership is to involve businesses in leadership. This may involve

- establishing a collaborative team including students, educators, and business employees;
- creating a focus group of business representatives that meets each May to answer the question, "How can we improve our partnership next year?"

- creating a focus group of businesses that meets once to determine the most important issue related to partnership programs;
- creating a small forum of employers to discuss future labor trends, etc.

Develop an employer speaker bureau. A school can suggest development of a speaker bureau. Company employees can present issues such as employee trends, quality-improvement techniques, global competition, sales and marketing, and other product-related topics to school faculty. Likewise, school personnel can present educational issues to company employees.

Create linkage between regular and special education business-related activities. At the risk of repetition, we suggest that the best way to approach this issue might be to simply do away with the distinction between regular and special education. We have the opportunity to develop one seamless business partnership practice that includes students in regular and special education in the same system. The new role of all educators will be to ask, "How can we help you to include all students in our partnership program with your company?"

Revise curricula to reflect best practices. Teachers should constantly revise their curricula to represent best practices. This can be accomplished by maintaining contact with other school-business partnerships and continually evaluating the effectiveness of new approaches. This strategy is part of the total quality management approach.

Have local businesses review school "curriculum" and strategies. Once the best practices have been identified and curricula have been revised, these new teaching strategies should be shared with business. Given the opportunity, businesses might take a "best practice" and improve on it.

Create community advisory committees. Oregon has established work force quality committees to advise schools on business partnerships. These regional committees are designed to provide comprehensive training and education programs for Oregonians through the collaboration of business and the public sector. Because the committees are composed of business representatives, educators, and human service professionals, they promise to be excellent sources for advice.

Have social service professionals intern at workplace and schools. Social service professionals can intern in schools and at worksites to create a "seamless" service system for graduating students. For example, the Department of Vocational Rehabilitation might be inclined to identify resources to pay for job modification for students with physical disabilities after working with a student and company.

Pursue vocational-technical curriculum in community colleges to train for skilled jobs. Community colleges are playing a greater role in the education of students for high-skilled jobs. For students who decide not to go to college, the community college will grow as a resource for occupational training. Students with disabilities can benefit from classes designed to teach these skills. Once again, students with disabilities should be included in business partnerships that include community colleges.

Have in-school integrated work experiences. Students in middle school should participate in integrated work experiences within the school. Work experiences including data entry, crossing guard duties, maintenance, carpentry, motor vehicle maintenance, etc., should be developed to include all students.

Use shadow programs. Shadowing programs can be used for middle school students. In these programs, students simply shadow employees of community businesses for all or part of their work day. The shadow program experience creates an awareness of what working in a job is really like. Shadow programs result in relationships between workers and students and also help develop students' work preferences.

Have business representatives visit schools. The initial stages of occupational awareness result in knowledge of businesses in the community. Business representatives should be invited to schools to introduce students to their business. This activity should include the participation of all students, with and without disabilities. If schools always include all students in this activity, business will expect work experience to include students with and without disabilities.

Use mentor programs. A mentor program connects individual students with a peer or older person who acts as example, confidante, and advisor. Many times, the focus is on at-risk students—those at risk of dropping out of school, attempting suicide, becoming involved in drugs, or never being employed. The goals of a mentor program are to keep students in school through the completion of a high school degree, assist students in achieving a quality work orientation, and give students an idea of how they can be part of their community.

Do job tours. Students indicating interest in a particular field (i.e., medicine) may benefit from job tours. Job tours that cluster community businesses and organizations can be an effective way for students to get a look at a broad range of jobs. In the example of medicine, a day of job tours may consist of short visits to doctors' offices, county health clinics, hospitals, and pharmacies.

Have students keep notebooks of job interests. Student notebooks are useful for identifying early vocational interests. The notebooks can include descriptions, pictures, or memorabilia of business contacts. These notebooks can help develop interest by serving as a catalyst for parents and students to discuss community occupational opportunities.

Create opportunities for students to practice teamwork. Students will need to become productive team members to fit into the changing organizational structure of U.S. businesses. One method of accomplishing this is for teachers to learn quality-improvement tools (Brassard, 1989). The teacher identifies a business problem (i.e., absenteeism) and acts as facilitator for student teams brainstorming, studying, and solving the problem.

Have career fairs. Teachers can organize career fairs for students in elementary and middle school. The career fairs take place at school and include various career areas (medicine, education, agriculture, retail sales, forestry, wood products, etc.). One or more representatives from each area should be invited to help students research career options.

Have each student learn a job and share with other students. If we know that a business will require training resources, we can help by preparing students to become employee/trainers. To get started, a company trainer might come to class to present training principles. Then students can learn a new skill (i.e., computer entry) and teach the skill to other students. The business trainer and the employee who performs the skill provide feedback to the student trainers.

Have parents share job experiences. One way elementary and middle school students explore work opportunities in their communities is to have parents, siblings, and friends discuss their jobs with students and classmates. For example, high school media students could visit a student's parents at his or her job site, videotape an interview, complete a profile of the company, and show the results during the class time.

Encourage parent education. Parents need to learn about work force conditions and opportunities in their communities. Parents of students with disabilities need to be aware that, as adults receiving vocational services, their sons and daughters will most likely be poor. They should also learn—through the identification of local examples of employees with disabilities earning high wages—that this need not be the case.

Develop business awareness of this population. Most employees in today's work force grew up during a time when students with and without disabilities were separated. This separation created fear and misunderstanding that remain in the work force regarding the productive capacity of employees with disabilities (Libowsky and Turner, 1992). A new awareness can be developed by networking businesses with no experience in employing people with disabilities with those that do so successfully.

Map social support networks of students. Until we greatly improve our transition system, students will continue to find jobs mainly through their social and familial networks. Because education and services for people with disabilities have typically isolated them socially, measures of an individual's social network can be very informative. A social network dominated by others with disabilities and teachers or trainers need to be expanded to include others without disabilities. Ac-

tions taken to accomplish this can be tracked and analyzed (Sandow et al., 1991).

Develop an information system to track graduating student outcomes related to jobs. If the purpose of education reform is to prepare students for high-skill/high-wage jobs, an information system that tracks work outcomes for the 50–60% of graduating students who do not go on to college needs to be established. This information system will provide Oregon Benchmark data (Oregon Progress Board, 1991) and allow schools to study their progress in preparing students for work.

Provide release time for teachers. For teachers to develop strategies that increase ties between students and business, they need to be released from classroom activities in order to increase their own involvement with companies.

Involve special educators in the workplace. For education to increase students' ties with business, teachers and administrators must first increase their own ties to business. Special education teachers, assistants, and administrators must increase their exposure to the workplace in order to develop new educational strategies.

Hold school classes at worksites. Once relationships are developed with business, primary and middle school teachers will find many opportunities to hold class at worksites. For instance, a class featuring safety awareness might be held at the public health office, fire station, or a company that is training its workers on household safety.

Create paid supported job experiences. For high school students, work experience is very important. Students who have been exposed to community vocations in elementary and middle school will probably be ready to choose which businesses they would like to spend time in. The work experience should closely follow student choice and follow certain general rules. It should be:

- led by the company
- chosen by the student
- supervised by masters of the skills the student is interested in
- paid
- in compliance with state and federal labor laws
- in compliance with the company's safety requirements.

For students between the ages of 16 and 21, credits as well as pay should be given for their work experience.

Encourage business/community organizations to offer students opportunities to participate in decision making. Every community has volunteer and professional organizations (recycling, toastmasters, rod and gun clubs, bird watching, etc.). As students indicate interest, they can be helped to participate in the organization. The student and the organization should be offered any support required to ensure that the student is an active participant.

Send workers out to schools. Often, the business representative in a school partnership is in a management position. Students can gain "real" knowledge relating to the workplace by inviting workers into the school. This also decreases the dependence on one company employee to be involved in all school-business partnership activities.

Have joint projects with companies and teachers. The Oregon Literacy survey (Oregon Progress Board, 1991) suggests that many working adults have minimal literacy skills. Projects that address these skill deficits and other Oregon Benchmarks are excellent for workers and teachers. Other human-investment strategies such as employee training or "train the trainer" may benefit from the precision training skills of rehabilitation and special education professionals (Mank et al., 1992).

Offer teacher/employer training opportunities at school and worksite. Training, particularly in areas of common interest such as the human-investment strategy, should be provided in schools and the worksite. This allows teachers and employers to build relationships as they discuss these areas of community interest.

Have principals and employers exchange jobs. Because of their similar positions in organizational hierarchies, school principals and business managers share common goals: they must both manage resources to increase quality and decrease costs. Principals and employers might ex-

change jobs occasionally to become familiar with the other work environment, establish relationships, and offer each other ongoing mutual support.

Develop transition plans with a vocational component. For students in middle school, plans should be developed that acknowledge the conditions of the local labor market, review each student's preferences, identify the student's strengths, and identify the student's social and familial networks that can help increase vocational awareness.

Understand that each student is unique. This is one of the many principles that should guide all vocational planning, particularly for students with disabilities.

Explore individual connections. Once a student's immediate social network is identified, it should be explored to discover individuals who act in a decision-making capacity in local businesses or who know of someone in a decision-making capacity. These individuals can be asked to suggest others in the community who might be interested in expanding vocational opportunities for the student.

Integrate people from different perspectives into the planning process. Student planning teams are often limited to school personnel and family members. Expanding these teams to include friends, employees the student has met through vocational experiences, or human service representatives will broaden the range of opportunities explored. Integrating people from different perspectives requires that we think in terms of the people who might be sharing the student's future.

Have employers do mock interviews. Through internships, strong relationships with company or agency human resource departments may be established. We can help them to provide mock interviews for middle and high school students. Accompanied by feedback and letters of personal reference, these can help students develop important interviewing skills.

Have students earn community service credits. If students become involved in community organizations or not-for-profit agencies, the educational benefit can be formalized by allowing them to earn community service credits. This encourages teachers, students, parents, and agencies to appreciate the educational value of all such experiences.

Have students apply for jobs. Educational and professional job development has taken the place of the typical job application process. High school students should be trained and encouraged to apply for jobs in companies in their community.

DISCUSSION

These suggestions represent a rather brief but functional set of strategies for establishing and strengthening ties between businesses and schools in a community. The power of these suggestions does not lie within their uniqueness or in their presentation as a model, but rather in their being generated quickly and easily by a school superintendent, a school–business liaison, a special educator, and business representatives—a selection of those with knowledge about community jobs and on whom finding jobs and gaining job experience and quality employment ultimately depend. Vocational educators, teachers, and others involved in school-to-work transitions might consider these features of apprenticeship in assisting companies to support employees with disabilities:

- Involve business as the primary decision maker in the new training strategy.
- Ensure that students learn new skills by being trained and supervised by the competent workers who perform the skill.
- Give supervising workers access to professional support, such as precision training and technical assistance for integrating students with disabilities into the work force.
- Arrange for students to be paid.
- Give business and employees the authority to change the new training system when the change increases the quality of the experience for the student, company, or employees.

As our society moves toward holistic views of systems, a proper issue for special education is whether to separate special education from regular education (Snell, 1993). Most initiatives in special

education "return" students with disabilities to classrooms with their nondisabled peers. It makes sense to approach education reform in the same way. For example, rather than creating a separate business partnership for students with disabilities, school-business partnership programs might seek to include students with disabilities in their existing partnerships. Separate programs appear to have greater negative impact on social integration than typically results from everyday interaction with individuals with disabilities. While no uniform approach is appropriate for all localities, vocational educators must aggressively pursue a variety of strategies with local businesses to ensure that students with disabilities are included in educational reform efforts.

REFERENCES

Akabas, S. H., Gates, L. B., and Galvin, D. E. (1992). *Disability management: A complete system to reduce costs, increase productivity, meet employee needs, and ensure legal compliance.* New York, NY: AMACOM American Management Association.

Anderson, B, and Andrews, M. (1990). *Creating diversity: Organizing and sustaining workplaces that support employees with disabilities.* Sitka, AK: Center for Community.

Bellamy, G. T., Rhodes, L. E., Bourbeau, P. E., and Mank, D. M. (1986). Mental retardation services in sheltered workshops and day activity programs: Consumer outcomes and policy alternatives. In F. Rusch (Ed.), *Competitive employment issues and strategies* (pp. 257-271). Baltimore, MD: Paul H. Brookes.

Bernstein, A., Brandt, R., Carlson, B., and Padley, K. (1992, Bonus Edition). Teaching business to train. *Business Week*, pp. 82-90.

Brassard, M. (1989). *Memory Jogger Plus* (first ed.). Methuen, MA: Goal/QPC.

Carnegie Council on Adolescent Development. (1989). *Turning points: Preparing American youth for the 21st Century.* Washington, DC: Carnegie Council on Adolescent Development.

Commission on the Skills of the American Workforce. (1990). *America's choice: High skills or low wages.* Washington, DC: National Center on Education and the Economy.

Eisner, E. W. (1991, October). Should America have a national curriculum? *Educational Leadership*, pp. 76-81.

Fabian, E. S., and Luecking, R. G. (1991). Doing it the company way: Using internal company supports in the workplace. *J Appl Rehabil Couns, 22 (2),* 32-35.

Farrel, A. M. (1992, March). What teachers can learn from internships. *Educational Leadership*, pp. 38-39.

Filipczak, B. (1992). Apprenticeships: From high schools to high skills. *Training, 29*, 23-29.

Fuchsberg, G. (1990, July 20). Many businesses responding too slowly to rapid work force shifts, study says. *Wall Street Journal*, pp. B1-B2.

Libowsky, G., and Turner, J. (1992). Discovering businesses' capacity to support people with disabilities. *Conference on Building partnerships for the future.* Atlanta, GA.

MacMillan, D. L., Balow, I., Widaman, K., Borthwick-Duffy, S., and Hendrick, I. (1990). Methodological problems in estimating dropout rates and the implications for studying dropouts from special education. *Exceptionality, 1,* 29-39.

MacMillan, D. L., Widaman, K., Balow, I., Borthwick-Duffy, S., Hendrick, I., and Hemsley, R. Special education students exiting the educational system. *J Spec Ed, 26*, 20-36.

Mank, D., Oorthuys, J., Rhodes, L., Sandow, D., and Weyer, T. (1992). Accommodating workers with mental disabilities. *Train Dev J, 46 (1),* 49-52.

Mank, D., Rhodes, L., and Sandow, D. (1991) *Training co-workers to teach job tasks to employees with mental disabilities.* Eugene, OR: University of Oregon Specialized Training Program.

National Association of State Boards of Education. (1992). *Winners all: A call for inclusive schools. Report of the NASBE Study Group on Special Education.* Alexandria, VA: National Association of State Boards of Education.

Nisbet, J. (1992). *Natural supports in school, at work, and in the community for people with severe disabilities.* Baltimore, MD: Paul H. Brookes.

Noble, B. P. (1992, September). Low standards harm education. *Register-Guard*, Eugene, OR, pp. 1C, 9C.

Office of Work-Based Learning. (1992). *The meaning of apprenticeship: When and how to use the term.* Salem, OR: Bureau of Apprenticeship and Training.

Oregon Progress Board. (1991). *The Oregon literacy survey: Measuring adult's functional skills.* Salem, OR: Oregon Progress Board.

Rhodes, L., Sandow, D., and Yan, X. (1992). *The employment integration project: Defining and measuring the effects of community employment for individuals with severe handicaps—final report.* Eugene, OR: University of Oregon Specialized Training Program.

Sailor, W., Gee, K., and Karasoff, P. (1993). Full inclusion and school restructuring. In M. Snell (Ed.). *Instruction of students with severe disabilities* (4th ed). (pp. 1-30). New York: Macmillan.

Sandow, D., Mank, D., Rhodes, L., and Taliaferro, W. (1991). *The integration guide.* Eugene, OR: University of Oregon Specialized Training Program.

Sandow, D., Olson, D., and Yan, X. (1992). *The evolution of support in the workplace.* Eugene, OR: University of Oregon Specialized Training Program.

Snell, M. E. (Ed.) (1993). *Instruction of students with severe disabilities.* New York: Macmillan.

Toews, J. (1992). *Proposed 25% reduction in general funds* (No. 95#2). Salem, OR: Oregon Department of Developmental Disabilities.

US Department of Education. (1991). *America 2000: An education strategy.* Washington, DC: US Government Printing Office.

US Department of Education/Office of Special Education and Rehabilitative Services/Rehabilitation Services Administration. (1992). *Annual report of supported employment activities as authorized under section 311(d) of The Rehabilitation Act of 1973, as amended.* Washington, DC: US Government Printing Office.

Wehman, P. (1992). *Life beyond the classroom: Transition strategies for young people with disabilities.* Baltimore, MD: Paul H. Brookes.

Wehman, P., Kregel, J., and Shafer, M. S. (1989). *Emerging trends in the national supported employment initiative: A preliminary analysis of twenty-seven states.* Richmond, VA: Virginia Commonwealth University Rehabilitation Research and Training Center.