ED 433 051                                          JC 990 541

AUTHOR        Scott, David, Ed.
TITLE         Preparing a Twenty-First Century Work Force: Innovations in
              Programs and Practices.
INSTITUTION   League for Innovation in the Community Coll.
PUB DATE      1997-02-00
NOTE          39p.; A publication of the Alliance for Community College
              Innovation.
AVAILABLE FROM League for Innovation in the Community College, 26522 La
              Alameda, Suite 370, Mission Viejo, CA 92691; Tel:
              949-367-2884; Web site: http://www.league.org ($10).
PUB TYPE      Reports - Descriptive (141)
EDRS PRICE    MF01/PC02 Plus Postage.
DESCRIPTORS   *Community Colleges; Educational Innovation; *Labor Force
              Development; *Partnerships in Education; Program
              Descriptions; Program Evaluation; Program Improvement;
              School Business Relationship; School Effectiveness; Two Year
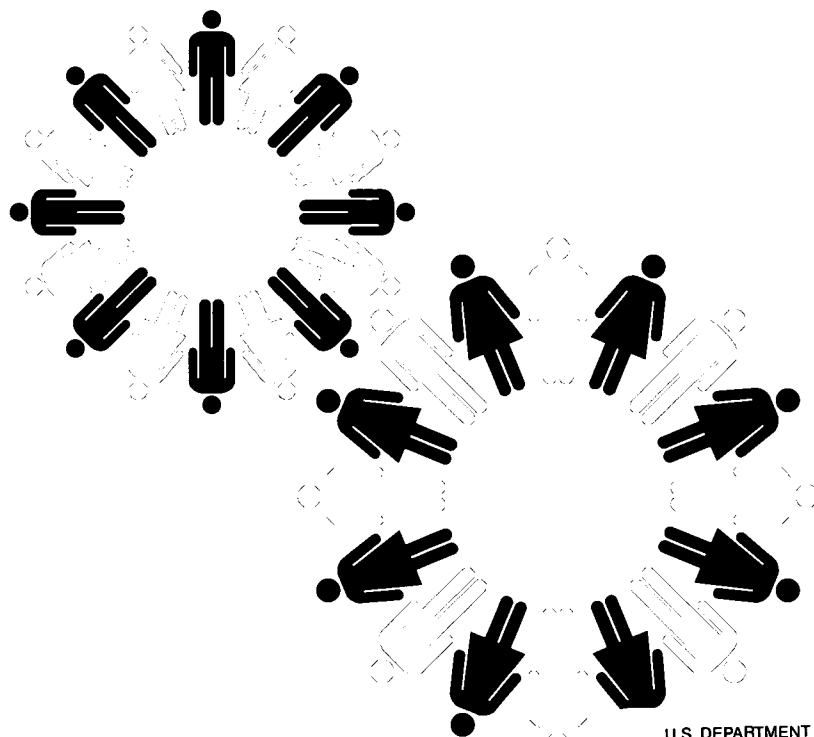              Colleges

ABSTRACT
        This document describes 54 successful and effective
community college programs that focus on innovative strategies for meeting
current and future workforce developments and requirements. This handbook was
prepared in response to an initiative to work in partnership with national
and international companies and agencies committed to workforce development.
Community colleges were invited to submit descriptions of their most
innovative and effective programs, which were evaluated by a national review
panel of community college educators. The 54 programs selected for their
merit are included in this report. The monograph is organized in five
sections: (1) section one covers the partnership between schools and
colleges; (2) section two looks at the partnerships between colleges; (3)
section three discusses the partnerships among community colleges, business,
and agencies; (4) section four delineates the workforce preparations in
specific curricular areas; and (5) section five provides a concise listing of
several workplace skills programs. Within the description of each program or
practice, the handbook provides the purpose, a description of the innovation,
special considerations for implementing the innovation, the impact of the
innovative program or practice, and a contact name and phone/fax number in
case there are additional inquiries. (JJL)

# PREPARING A TWENTY-FIRST CENTURY WORK FORCE:

## Innovations in Programs and Practices

League for Innovation in the Community College

BEST COPY AVAILABLE

A PUBLICATION OF THE
ALLIANCE FOR COMMUNITY COLLEGE INNOVATION

# PREPARING A TWENTY-FIRST
# CENTURY WORK FORCE:

## Innovations in Programs and Practices

David Scott, Editor

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# PREPARING A TWENTY-FIRST CENTURY WORK FORCE:

## Innovations in Programs and Practices

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# INTRODUCTION

In 1994, the Board of Directors of the League for Innovation in the Community College created the Workforce Initiative as a major new priority of the League. The purpose of the initiative is to work in partnership with national and international companies and agencies committed to workforce development to expand and design innovative programs in community colleges throughout North America. The League and its partners in the Workforce Initiative are currently developing projects, publications, and training programs as the major activities of the Initiative.

This monograph is one in a series resulting from the initiative. *Preparing a Twenty-First Century Work Force: Innovations in Programs and Practices* was designed to enable community colleges to share innovative strategies for meeting current and future workforce development requirements. Fifty-four successful and effective programs are described from community colleges and organizations from throughout Canada and the United States.

In the summer of 1996, the League for Innovation in the Community College invited community colleges involved in workforce preparation to submit brief descriptions of their most innovative and effective programs and practices in workforce development. The submissions were evaluated by a national review panel of community college educators and fifty-four of them were selected for their merit for inclusion in this monograph.

The monograph is organized in five sections: Section One contains descriptions of Partnerships between and among Schools and Colleges; Section Two contains descriptions of Partnerships between and among Colleges; and Section Three includes Partnerships between and among Community Colleges, Businesses, and Agencies. Section Four describes programs and practices of Workforce Preparation in Specific Curricular Areas; while Section Five describes Workplace Skills Programs. Each entry begins with the purpose of the program or practice and continues with a description of the innovation, special considerations for implementing the innovation, and the impact of the innovative program or practice. A contact name and phone/FAX number follow to allow the reader to obtain additional details. The institutions from which this collection of innovative programs and practices was taken are listed in the Index.

We appreciate the efforts of those who committed the time to write and submit descriptions of innovative programs and practices and their willingness to share ideas. To each of them is extended sincere appreciation and thanks.

We are especially grateful to David Scott, Kern Community College District, for serving as Editor of this monograph. He provided invaluable assistance in organizing and editing the contents and lending a creative and knowledgeable hand.

We hope you will enjoy and learn from the information and that it will assist in leading to your own successful preparation of a twenty-first century work force.

Nancy Italia
Associate Director
League for Innovation in the Community College

# PARTNERSHIPS: SCHOOL TO COLLEGE

## The "Great Thinkers" Tech-Prep Prefreshman English Courses

**Purpose:**

To bridge the gap between high school and college by preparing students for freshman skills exams in the short term, and developing college readiness skills and SCANS competencies in the long term.

**Description:**

Courses, offered to seniors for high school credit, are theme centered around "Great Thinkers in Science," (e.g.— Galileo, Darwin) or "Great Thinkers in Industry," (e.g.— Ford, Taylor). Courses are offered at the college for three hours on Saturdays. Each figure is explored through lecture, readings, writing assignments, lab experiences, and field trips. Courses conclude with group projects related to course themes and oral presentations of projects to panels of high school and college faculty.

**Special Considerations:**

Courses must be team taught by high school and college faculty in a college setting. Students require access to a LANS computer writing lab, which includes word processing and Internet access, and science labs. Funding is required for faculty time and field trips.

**Impact:**

Anticipated outcomes are: (1) Provide a theme-based curriculum template; (2) Introduce college setting and faculty; (3) Bypass need for noncredit developmental skills college courses; (4) Develop integrated knowledge base rooted in "real world" applications; (5) Develop variety of cognitive and affective college readiness skills; and (6) Develop familiarity with multiple teaching methodologies and instructional technology systems.

**Contact:**

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and
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## Integrating High School English and Applied Communications

**Purpose:**

To provide secondary English and Business English teachers with lesson plans that integrate current subject matter with applied communications and "hands-on" learning. The lesson plans can be used directly or adapted for special purposes.

**Description:**

The compendium includes 24 lesson plans ranging in length from a single session to a six-weeks exercise. Plans relate educational content in high school English and Business English to modular lessons in Applied Communications; the latter developed and marketed by the Agency for Instructional Technology (AIT).

**Special Considerations:**

Some lessons require special materials or aids for portions of the lessons. These requirements are specified in the content of the lesson plans, where applicable.

**Impact:**

Workshop instructors in Applied Communications and high school English teachers, alike, identify the lack of available lesson plans as a primary obstacle in implementing an integrated course in high school English and applied communications. The compendium provides teachers with materials to "get started" and the models to develop individual plans.

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## School-to-Work Continuum Model K-16

**Purpose:**

To integrate the educational process in the primary, secondary, associate, and baccalaureate levels for school-based learning, work-based learning, and connecting activities of school-to-work. To develop holistic individual educational plans that systematically integrate educational goals into a career plan.

**Description:**

Penn State Altoona works through a six-county consortium to strengthen and expand competency-based primary and secondary curricula. The goal is to develop advanced knowledge and skill curricula that integrates with associate degree programs. Students are provided progressively more sophisticated work-based learning experiences that lead to a postsecondary internship program for the associate and 2 + 2 baccalaureate programs. Innovative career guidance activities unite work-based and school-based learning through the continuum.

**Special Considerations:**

Ongoing commitment of all consortium partners.

**Impact:**

Anticipated area outcomes of continuum model include: (1) Long-range career-oriented education planning for a predominantly first-generation college student population; (2) Coordination of business and industry student-training opportunities throughout the six-county region in order to provide students with best fit experiences for career goals; (3) Quality workforce development is achieved on a regional level.

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## School-to-Work Opportunities—A Local Partnership Initiative in East Tennessee

**Purpose:**

To integrate and sequence work-based, work-site learning experiences into curricula for all students K-Life in four school systems, a technology center, a community college, and the service area including two counties in East Tennessee.

**Description:**

Utilizing a proven base of tech-prep and school-to-work types of programs, business, industry, partnerships, colleges, and schools in both counties are establishing an infrastructure for strong partnerships. Mentoring, job shadowing, internships, cooperative education placements, and apprenticeships are being developed with school-based and work-based sequenced curricula to provide a globally competitive work force. Trained mentors and supervisors in the work force are assisting with development of integrated curricula and standardized competencies.

**Special Considerations:**

Tech-prep and cooperative education models articulate secondary and postsecondary curricula and competencies, provide interdisciplinary staff development, and provide area counselor training to update vocational guidance/learning for students in college and all career paths. Partnership includes major four-year research institution to develop credit program for teachers, faculty, and counselors who work with the system.

**Impact:**

This partnership has resulted in: (1) A community infrastructure to address current and future local labor market needs based on Secretary's Commission on Achieving Necessary Skills (SCANS); (2) Dissemination of information to create an emerging awareness in parents, students, educators, managers, and government officials of changing economy and labor force skills needs; and (3) An improved curricula to include soft skills such as team building, problem solving, work ethics, and loyalty.

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## Summer Workforce Preparation Program for High School Students

**Purpose:**

To establish education and business partnerships resulting in the provision of valuable career information and experiences to local high school students. This interactive learning approach will increase their awareness of the skills necessary to be successful in a highly technological business environment.

**Description:**

Students are recommended for participation in this two-week summer program by high school counselors. Sponsorships are awarded by local businesses. Curriculum is designed for diversity in its approach and incorporates existing college resources. Computerized Career Assessment, starting a small Business, Homepage Development, Videoconferencing, Conflict Resolution, Videotaped Interviews, Power of Multimedia, Internet Projects, Job Shadowing, and Physical Fitness are included. This program takes place during regular business hours at the college's Institute of Economic Technology.

**Special Considerations:**

Training providers must have access to computers, videoconferencing equipment, and the Internet. Program components such as the Weathernet Project or the Automated Industry Matching System would have to be substituted with local available resources.

**Impact:**

Students will understand the importance of setting career goals and using labor market information and technology in their decision-making process. They will become more self-confident in their job search endeavors. Businesses will see a return on their investment by assisting in the preparation of their future work force.

**Contact:**
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## Tech-Prep Associate Degree Bridge Program: A Student Success Model

**Purpose:**

To provide a pathway for reentry and high school students (without a tech-prep background) to be successful in community college and the workplace. Students acquire "Lifelong Learning" skills in a program using workplace models as assignments that integrate the five courses in the program.

**Description:**

The Coast Community College District Tech-Prep Consortium (composed of high schools, ROP, community colleges, and industry partners) have developed an integrated program of five courses: Science and Technology, English, Computer Applications, Math, and College Success. SCANS skills have been incorporated into the curriculum.

The seven faculty teaching the courses formed a "Learning Community" and designed: workplace relevant, across-the-curriculum, collaborative structures and assignments. The "Learning Community" met weekly to assess student progress and effectively link assignments and collaborative strategies.

**Special Considerations:**

To be successful the program must consist of: Administrative leadership and financial support; a dedicated faculty team to develop thematic-linked academic applications; and input from business and industry partners to ensure the workplace relevancy of the curriculum.

**Impact:**

Reentry and at-risk students are developing learning skills essential for college and workplace success.

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## Using CD-ROM Technology as a Postsecondary Program Guide

**Purpose:**
To provide high school students with a resource for exploring postsecondary options using current technology.

**Description:**
A compact disc was designed outlining programs available at the community college and the area technical centers in the Orange/Osceola/Valencia Tech-Prep consortium. This compact disc will afford easy access to program information and related jobs. The CD format was selected because all seniors in area high schools have access to a CD-ROM player at the school site, and it would accommodate the wide range of programs available. The CD can be easily changed from year to year since this technology allows for modifications before a new batch of CDs are produced.

**Special Considerations:**
Students must have access to a computer with a CD-ROM. A floppy disk format was explored, but it was determined that it would take several disks to accommodate the information. The initial cost of development was high since a special programmer was employed. A great deal of coordination was necessary to compile all of the program information in a consistent manner for all agencies involved.

**Impact:**
Prior to distribution, the CD will be evaluated by a focus group of high school seniors. The impact of the CD will be tracked and measured based on student inquiries into the postsecondary programs at the individual institutions.

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# PARTNERSHIPS: COLLEGE TO COLLEGE

## Competency-Based Training for Community Health Workers

**Purpose:**

To meet strong occupational demand for well-prepared bilingual and bicultural first-level health workers and to create an educational and career pathway for community people working in health.

**Description:**

The first college-credit Certificate for Community Health Workers in the U.S. was developed by a partnership between City College of San Francisco and San Francisco State University, in collaboration with public health departments, community organizations, and health maintenance organizations. The two colleges are developing a competency-based curriculum derived partly from a job task analysis carried out by high-performing workers and an innovative model for student retention and transfer to the state university titled "Health Train."

**Special Considerations:**

External funding is necessary for initial start-up. (The colleges received a grant from the Fund for the Improvement of Postsecondary Education.)

**Impact:**

A postprogram survey showed that for those who were not already working as Community Health Workers (CHWs) at the beginning of the training, 84 percent had been hired; for already-employed CHWs who came for in-service training, two-thirds received promotions or desired transfers. The CHW Training Program was selected as one of the 15 most "innovative and promising" health employment programs in the country, and featured in a report prepared for the Annie E. Casey Foundation.

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## A Consortial Approach to Develop and Deliver Tourism Curriculum

**Purpose:**

To respond to a common mission of delivering relevant, effective, industry-responsive, and accessible curriculum to meet eco-adventure tourism industry training and employment needs through four colleges on the west coast of British Columbia, Canada.

**Description:**

The Coastal Eco-Adventure Tourism curriculum combines the basic eco-adventure tourism knowledge and industry standards of practice with specific practical coastal tourism field skills. The curriculum and the delivery models take into account the diversity of the regions, client/guest groups, industry operators, and the various needs, interests, learning styles, and abilities of the learners. Curriculum is delivered through distance education and/or classroom modes in addition to a field camp and work experience.

**Special Considerations:**

The integrity and consistency of the curriculum must remain intact by ensuring that the learning outcomes and field hours remain the same in four regions. It must be delivered according to the seasonal cycle of tourism in each region. The curriculum emphasis must reflect a variety of employment opportunities and standards.

**Impact:**

This consortial approach will improve or enhance employability skills; address needs of a high demand labor market; apply industry-validated curriculum; adapt to a number of different delivery models; enhance delivery efficiency; reduce program duplication; combine strengths and resources of four colleges; enhance articulation and laddering opportunities; lead to further collaborative program/curriculum developments; and provide work experience.

**Contact:**

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## Contract Education: Moving the Focus from Training to Performance Improvement

**Purpose:**

To help contract education programs remain current and competitive in a training industry whose focus is changing from providing training to providing business performance improvement programs through a skill development program for practitioners and follow-up technical assistance for their programs.

**Description:**

Sixty California contract education practitioners attended a one-day introductory workshop on performance improvement principles, followed by a two-day intensive seminar led by a national expert in performance consulting. They are receiving follow-up support to apply their skills through one-on-one coaching with ED>Net (California Community College Economic Development Network) Directors of Contract Education and practitioner meetings for practice on case studies. Individual college units are working with ED>Net on developing non-training services and business plans that facilitate their transition to full-service performance improvement departments.

**Special Considerations:**

The transition from traditional training to a performance improvement focus is critical to the ongoing growth and competitiveness of college contract training programs. Coordination by a consortium like ED>Net is critical.

**Impact:**

Although a formal impact study has not yet been conducted, gains self-reported by colleges include: improved ability to assess company needs, demonstrated increases in sales of nontraining services, increased effectiveness in reaching high-level corporate decision makers, stronger partnerships with major employers, and improved ability to demonstrate return on investment for training and other services provided.

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## Texas Professional Development Institute: A Statewide Collaborative Model for Community Colleges

**Purpose:**

To create a statewide multicollege Professional Development Institute, a model for occupational faculty that delivers professional development on cutting-edge issues across the state of Texas.

**Description:**

The Professional Development Institute is a statewide multicollege model for professional development in cutting edge instructional issues. Lead by the Texas Community and Technical College Workforce Education Consortium at El Paso Community College, each college has created workshop designs in integrating SCANS skills, using business advisory committees, capstone course development, innovative instructional methodologies, and others. Faculty from across Texas are trained in delivering the workshops, and institutes are held at different colleges in the state.

**Special Considerations:**

The importance of using the Internet to communicate between faculty across the state, the necessity for all faculty to have access to the Internet, and the need for incentives for participating faculty.

**Impact:**

Faculty across the state are able to participate in high-quality, well-delivered, comprehensive development opportunities. Colleges have a low-cost way to access training resources, and the state of Texas, with its 55 community and technical colleges, has a way to support faculty development in all schools.

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## An Urban Higher Education Partnership

**Purpose:**

To provide educational opportunities to employees and citizens in downtown Oklahoma City through a cooperative endeavor by five area colleges.

**Description:**

An educational consortium was established by four two-year institutions and one four-year institution. The consortium offers the classes and contracts with instruction provided by the member institutions. A quality incentive grant provided the means to electronically connect the five institutions and the consortium. The partnership provides employers and employees in Oklahoma City one point of contact but access to five institutions.

**Special Considerations:**

The consortium acts as a broker for the five colleges. Students enroll through the consortium, identify a home institution, attend class with students from the five institutions, and receive instruction from a single instructor. Fees and charges are paid directly to the consortium. Instructional costs and other charges are billed to the consortium by the faculty member's institution.

**Impact:**

The consortium provides the only public higher education to employees and citizens in downtown Oklahoma City. Through the consortium, not only can employees and residents of Oklahoma City enroll in classes downtown, but they have a seamless transfer between the five institutions. An added benefit is the ability of the consortium to customize training on site or at the consortium location.

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# PARTNERSHIPS: COMMUNITY COLLEGES, BUSINESS, AND AGENCIES

## Center for Help in Assessing Needs and Goals for Education (CHANGE)

**Purpose:**

To provide an educational assessment, client-centered evaluation, and a statistical client profile for a database that serves the Hudson County Department of Human Services model Family Development Plan Division.

**Description:**

Project CHANGE is the preliminary step in a model welfare reform program. Each client is interviewed and scheduled for testing. Based on the test results and interview, the client is referred to an appropriate activity and/or provider of needed services as part of the model welfare plan. Activities and service providers are screened and chosen by the Family Development Program of the County Department of Human Services.

**Special Considerations:**

The project must have: ESL testing materials; four levels of the Test of Adult Basic Education (TABE); database software; networked personal computers; dedicated telephones; a scanner to score results and locator material; professional personnel to accomplish these tasks; a separate and appropriate environment for testing, interviewing, and advisement.

**Impact:**

Project CHANGE has provided the first client-tracking database that the Family Development Program has ever had. From June 1993, to December 1995, 14,000 unduplicated clients have been assessed, interviewed, referred, and entered into the database which is shared with the agency for workforce development.

**Contact:**

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and
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## A Collaborative Culinary Arts Program

**Purpose:**

To provide culinary arts training to students in ski-country resorts, one of the fastest-growing employment fields in the U.S.

**Description:**

Keystone Resort expressed a need for trained chefs in Summit County, Colorado, and also a willingness to lead the effort in the county. Colorado Mountain College responded, and the two organizations have collaborated to provide a unique training program which provides academic training and apprenticeships in a variety of work settings at a ski resort. The program results in an Associate Degree in Culinary Arts, American Culinary Federation Certified Cook certification, and Certificate of Apprenticeship.

**Special Considerations:**

Both the resort and the college must be willing to make concessions and must financially support the collaborative efforts. Additionally, students must be made aware of the rigors of the three-year culinary arts program.

**Impact:**

The college is preparing students for one of the fastest-growing employment fields in the U.S. Keystone Resort is enjoying a cadre of dedicated, skilled, year-round employees. Other resorts and restaurants in the region benefit from having more skilled applicants for culinary positions.

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Colorado Mountain College (Colorado)
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## A Community Partnership-Recycling Computers for Education

**Purpose:**

To provide meaningful learning opportunities for electronics students and at the same time provide increased access to computers for schools and nonprofit organizations in the community.

**Description:**

The local chamber of commerce and community college have partnered to collect, repair, upgrade, and install donated computers in the community to perform useful work. Electronics students have access to the sites to perform worksite service routines and train clients as part of their education. These clients provide feedback on student performance to reinforce customer relations and communications skills.

**Special Considerations:**

This initiative involves a considerable number of businesses, schools, nonprofit organizations, and private individuals. The college has formed an oversight committee to coordinate the tasks associated with requesting donations, equipment pickup and delivery, public relations, fundraising, application review, and general operating guidelines.

**Impact:**

Students enjoy working on meaningful community-based projects. They exhibit enthusiasm and pride in their work, knowing their computers will be used for a number of worthy causes. The electronics program has flourished from the tremendous community and media support. Local businesses and institutions take pride in their role and benefit by the positive goodwill.

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## A Cooperative Early Childhood Administrator's Certificate

**Purpose:**

To educate early childhood administrators lacking early childhood expertise to meet state guidelines. To provide networking and cooperation among early childhood administrators in two regions in Indiana, while improving the quality of care provided for children in child-care facilities.

**Description:**

Five intensive courses during one year provide the requirements for administrators on waiver from the state to obtain the needed educational requirements for their job. Cooperative adult-learning experiences, hands-on activities, and research are the methods for class instruction. The get-away relaxed space provides a learning environment for sharing and gaining knowledge and skills. Telephone conversations between classes allow for group work assignments.

**Special Considerations:**

Courses are provided at an adult retreat center. The surroundings of various room arrangements and outdoor environment allow for different modes of learning plus a variety of teaching techniques. The settings are conducive to thinking and processing information for the different learning styles of the participants.

**Impact:**

The licensing agency in the state supports these classes to aid administrators to meet state-established requirements. The children and parents in these centers benefit from an educated administrator who understands child development. The staff benefits from minimal absenteeism of the administrator who gains education and networking opportunities.

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## Corporate-Specific Education through Eight New England Colleges

**Purpose:**

The NYNEX NEXTSTEP Program was developed to provide an AAS degree program for eligible union employees throughout New England in response to rapid shifts in complex technologies in the telecommunications industry.

**Description:**

Eight partner colleges will offer leading-edge telecommunications technology AAS degree programs that continually improve in content and instructional methodologies by sharing ongoing developments in a laptop-computer learning environment. The unique approach to faculty development and curriculum development across eight campuses in New England and twelve campuses in New York, in both a virtual and real environment, encourages the colleges and the corporation to benefit by being more current, responsive, and competitive. Instruction is designed to be competency based, learner centered, and contextually focused.

**Special Considerations:**

In order to meet the specific needs of the corporation and union employees, a laptop-computerized virtual learning environment must be provided to all students and faculty. This virtual learning environment is a critical component for each course. Students and faculty must be provided direct and easy access to a central file server to use the Lotus Notes network.

**Impact:**

Curriculum will be under <u>continuous</u> development by faculty through interaction on Lotus Notes, the World Wide Web, and faculty institutes. College resources and talents will be shared throughout New England and New York. The virtual laptop environment will make visible to all students and faculty the team-based and individual solutions to course parallel applications.

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## Flexible Multimedia Instruction for Small to Medium Businesses

**Purpose:**

Lansing Community College worked with eleven community colleges and ten businesses under the CoNDUIT grant to develop models of quality multimedia-supported instructional services delivered at a distance via the Internet.

**Description:**

The college developed two interrelated vehicles to support small and medium businesses in the district: an interactive training/consulting web page for CAD/CAM programs, including requests for training and "ask the professor" consulting, and a set of two multimedia-supported courses: a theory course for the introduction to information technologies for business and a skills course for computer applications. These flexible services are offered in open/entry open/exit format delivered via the Internet.

**Special Considerations:**

Colleges attempting to use this innovation will need to develop support labs for delivery of multimedia courses, as well as automated testing services.

**Impact:**

Small businesses in the Lansing area can now help employees become aware of the basic technologies upon which businesses are becoming increasingly dependent and develop basic computer skills in a flexible and efficient manner. In addition, CAD/CAM operators have an inexpensive source of advice when questions arise, and companies have a flexible source for CAD/CAM-related training via the Internet.

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## A High-Performance Learning Alliance

**Purpose:**

To form an industry/education learning alliance in order to prepare the 3M work force to face the realities of the global manufacturing workplace as the Abrasive Manufacturing Organization of 3M moves to become a "High-Performance Manufacturing Organization."

**Description:**

Working together as an organizational leadership team, staff from the 3M Abrasive Manufacturing Organization and Alexandria Technical College (ATC) have designed and operationalized a unique learning system based on organizational values, a commitment to lifelong learning, and organizational redesign. Three college employees have been assigned full time to the 3M/ATC Alliance, and serve in leadership, design, delivery, and continuous improvement capacities in the initiative.

**Special Considerations:**

This alliance has been designed within the framework of a significant, continuous contract between 3M and Alexandria Technical College.

**Impact:**

Learning assessment and instructor development processes have been designed and implemented, a training scheduling system for 1,100 employees at four plants has been designed and implemented, 1,100 employees have been trained, 145 teams have been established, 2 supplemental grants have been written, and a Manufacturing Reliability Technology credit program has been established.

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## The Human Investment Partnership (HIP): Community Quality Improvement Processes

**Purpose:**

To provide coordination of quality improvement and training for businesses in the Lane Community College service area.

**Description:**

Through HIP, a consortium of 30 employers determine regional training needs and develop training programs to address these needs. Training and training-related resources are also exchanged. By exchanging and codeveloping training programs, training is delivered to a broader population at a reduced cost. Lane Community College provides the coordination for consortium activities.

**Special Considerations:**

Employers pay a registration fee for membership based on the size of the organization and the level of involvement. Lane Community College contributes nonrecurring funds to assist in coordinating HIP.

**Impact:**

As a result of HIP: (1) Organizations save training dollars by exchanging training programs and developing training programs to meet their collective needs. (2) The college obtains business input in potential training curriculum. (3) College visibility has increased within the community.

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## Mobilizing Community Resources to Facilitate Intel's Expansion in Washington State

**Purpose:**

To create a win-win situation by meeting an expanding world-leading computer manufacturer's need for a quality work force while providing local economic growth and employment opportunities with special emphasis on long-term unemployed and dislocated workers.

**Description:**

Pierce College partnered with Intel to design and deliver a comprehensive training program for new employees. This community partnership (government, education, community-based organizations, labor, and business) recruited, trained, and placed several hundred people in new manufacturing jobs. Specially trained faculty from a seven-college consortium, spanning three counties, delivered a preemployment manufacturing training program which focused on workplace diversity, safety, quality, computer literacy, and manufacturing competencies.

**Special Considerations:**

A willingness of community groups to overcome "turf" issues, to be flexible and supportive of all partners is critical. Faculty trainers need to effectively use interactive and experiential learning strategies. Funding sources need to be identified. This project secured state workforce training funds which were matched by the company.

**Impact:**

Increased community collaboration and coordination; consistency of education and training; instructional strategies that promote performance outcomes and support learning for all students; improved workplace effectiveness; and a foundation for a long-term partnership between education, government, community, labor, and business.

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## Parents of All Ages—Partnership Linking Education, Business, and Government

**Purpose:**

To break the cycle of poverty for men and women who are receiving Aid to Dependent Children.

**Description:**

This partnership program involves Southeast Community College, state agencies that deal with Aid to Dependent Children (ADC), Job Training, and local businesses and organizations. The program was designed for families to benefit from an environment that provides association with and support from other parents in similar situations while working toward common goals of self-sufficiency. There is no fee for parents. Funding is provided through the state agencies of job training and social services. The eight-week summer program provides information, support, and opportunities to pursue education and training necessary to obtain gainful employment.

**Special Considerations:**

For such a model partnership to work, family residential facilities must be provided. There must be a willingness by all parties to form a steering committee; funding must be provided for the program to be effective and available to the parents receiving ADC; and additional staff are needed to coordinate the program, activities, and to oversee the daily operation of the housing facility.

**Impact:**

The Parent of All Ages Program has been very successful since its inception in 1989. An estimated 25 percent of the participants have or are currently enrolled in college; 30 percent are working full-time; 20 percent are no longer receiving any support from social services; and 15 percent receive only transitional medical support.

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## Partnership between a College and the Apparel Industry

**Purpose:**
To provide training in technical skills for apparel manufacturing utilizing necessary equipment and faculty training.

**Description:**
This innovation involves the unique industry/education partnership between the Fashion Design and Apparel Technology Department (FDAT) at West Valley College and Gerber Garment Technology, Inc. (GGT), the world's largest supplier of computer-manufacturing technology for the apparel industry. The FDAT program receives assistance in obtaining, maintaining, and upgrading its computer equipment, as well as faculty training while GGT benefits from the graduates who are trained in their technology and are likely to buy it and use it in industry. Additionally, there is the added benefit of training and retraining industry professionals.

**Special Considerations:**
Participants need to be aware that developing a strong industry/education partnership requires an entrepreneurial spirit and a lot of time and energy to keep the relationship viable. Building an industry standard technology-based curriculum requires strong college administration support and flexibility and the willingness to share expenses with the industry partners.

**Impact:**
West Valley College's three-year partnership with GGT has dramatically changed the Fashion Design and Apparel Technology Department at West Valley College. The college now has an entire classroom of 35 GGT Accumark computer systems for apparel design and manufacturing, as well as the peripheral equipment such as digitizers and plotters. College graduates are sought after as employees and internship sites have doubled in the past year.

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## Partnership Preparation of Workers: Geometric Dimensioning

**Purpose:**
To develop skills in workers to respond to dynamic conditions that arise in a manufacturing environment, specifically to provide training in measurement and statistical process control in the transition from coordinate measuring to geometric dimensioning.

**Description:**
Forsyth Technical Community College has customized a training program for American Marine Products (AMP) to convert from a coordinate measuring system to geometric dimensioning. The program is built on experiential instruction reinforced with real-world applications. The college offers credit courses in mathematics, drafting and design, and machining on-site, facilitating a link between classroom instruction and workplace application. Cost for instruction by the college staff is one-twentieth the cost of in-house training.

**Special Considerations:**
It is important that the three-shift climate at the AMP facility be accommodated so that all employees gain access to the program. Community college instructors need to provide instruction during morning or evening hours. The business and college partners should jointly identify key areas of instruction.

**Impact:**
Workers gain critical thinking skills and the ability to distinguish nominal and marginal products. AMP benefits from less waste and more production. The program also creates an impetus for workers to pursue education beyond the on-site courses. AMP's evaluation program links employee performance to corporate goals and assesses efficacy of on-site instruction.

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## Partnerships for Supplier Training

**Purpose:**

To provide training for suppliers cost effectively which returns better quality products and services for large-area corporations.

**Description:**

A partnership with the consortium for supplier-training companies (Bayer Corporation, Chrysler Corporation, Eastman Kodak Company, Motorola, Texas Instruments, and Xerox Corporation) enabled Finger Lakes Community College to learn state-of-the-art training processes and to create a customer base of suppliers for these companies. Courses are written and developed by these major companies and given to the college to deliver to their suppliers. Also, these courses are modified and mixed with current course offerings to improve current training processes.

**Special Considerations:**

With the ever-changing way technology has impacted society today, companies need to update the knowledge and abilities of their suppliers and employees to ensure top quality products and services. Partnership members must work together to keep up with the technology.

**Impact:**

Finger Lakes Community College set up its corporate training department as the Institute for Workforce Development. Since the beginning in 1983, the institute has provided quality training and services to the community at a loss. This new partnership has improved the college's training programs, expanded service to the community, and made it possible to operate the institute for a profit.

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## A Pay-for-Knowledge Program

**Purpose:**

To increase the quality, productivity, flexibility, and versatility of the production force of Siemens Automotive so that the firm will be globally competitive through a pay-for-knowledge program.

**Description:**

There are two components of the program: (1) An educational focus to provide the broad conceptual knowledge or theoretical foundation; and (2) An on-the-job training component which provides the practical hands-on training and experience necessary to develop and master skills needed for employees to perform specific work operations in areas other than their own classification.

The target work force of this program consists of 913 production employees. Of this total group, 679 employees are participants in the Pay-for-Knowledge (PFK) Program. Entrance into the PFK program is through enrollment in the World Class Manufacturing I course. In this course, employees are taught interpersonal team skills; concepts and applications of just-in-time, total quality tools, and manufacturing resource planning; and are provided insight into the automotive industry in general and the fuel injection (supplier) industry in particular.

**Special Considerations:**

Employees are all voluntary participants. All courses are financed by the company and offered for all three shifts.

**Impact:**

Because of the cross training, the company has avoided the need to hire during peak demands and lay off employees during production slow downs. The program has expanded the college's courses by integrating total quality management tools within the existing curriculum. Overall productivity and quality at the plant have increased significantly. The program has received numerous awards and has been featured in Fortune Magazine.

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## A Twenty-First Century Education for the Wireless Industry

**Purpose:**

To prepare technicians for fast-growing wireless communications, the work environment requires education in a technology-based environment linking classroom and work-based learning. Seattle Central Community College (SCCC) has teamed with Seattle's wireless communications companies to develop such a curriculum to meet their twenty-first century workforce needs.

**Description:**

Using a collaborative curriculum design process, SCCC and representatives of major wireless communications companies and labor jointly designed a computer-based curriculum. Interactive modules, "virtual labs," and multimedia and other wireless communications technologies are essential classroom teaching-learning tools, augmented by work-based learning and business-led seminars. The business/education/labor design team creatively integrated technical skill preparation with liberal studies to produce the two-year AA degree/Tech-Prep program.

**Special Considerations:**

Collaborative curriculum development process involves business/labor as codesigners of outcome-based curriculum. The curriculum must be responsive to industry needs and utilize technology as a primary teaching tool. Colleges must commit funds for an interactive learning environment that fully utilizes innovative, highly interactive, technology-based teaching methods, i.e., Internet and "virtual labs."

**Impact:**

Technological literacy of students is enhanced. Use of technology has provided up-to-date access to new information with industry-designed curriculum graduates prepared for work environments of the future. Integration of work-based learning strengthens successful transition from school to work. Partnership with business/industry ensures continued response to workforce training needs by the college.

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# WORKFORCE PREPARATIONS IN SPECIFIC CURRICULAR AREAS

## Academic and Occupational Curriculum Integration in Office Technology

**Purpose:**

To provide students in occupational programs with high-performance workplace skills and competencies through the integration of academic and occupational curricula. The intent of such curricula integration is to minimize the disjuncture between general education academic course work and occupational course work through the creation of a seamless curriculum.

**Description:**

A collaborative team of faculty from the arts and sciences and business designed a curriculum for the Office Systems Technology program and developed a method of delivery that fosters that integration. The integrative features include portfolio development, an integrative case study, team-building activities, and problem-solving/critical-thinking components. The method of delivery utilizes a modularized curriculum, close collaboration between and among faculty to coordinate curricular content, and innovative scheduling.

**Special Considerations:**

Students involved in the program must participate as part of a cohort. No individual enrollments are possible due to the integrative nature of the curriculum and modularization of the delivery. Some courses will need to be redesigned, others developed. Also faculty assignment and remuneration issues will need to be addressed.

**Impact:**

Increased faculty/student communication and collaboration; increased awareness of high-performance workplace expectations on the part of students and faculty; increased student interest and involvement in their learning; transference into the "regular" curriculum of ideas and techniques learned by faculty in this effort; and increased collaboration between and among participating faculty.

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## Advanced Technology Curriculum: Meeting American Electronics Association (AEA) Standards

**Purpose:**

To develop model programs that incorporate standards developed and validated by industry through the AEA. To raise performance levels for technicians in industrial applications and to seed and sustain dynamic educational and industry partnerships.

**Description:**

This comprehensive project involves a dynamic partnership between education and industry charged with the goal of making major improvements in electronics and engineering curriculum. Three primary components make up the project: faculty development, curriculum and instructional materials, and laboratory improvement. Selected as a beta test site by the AEA, the project will serve as a national model for integration of industry standards into the curriculum.

**Special Considerations:**

Educational institutions have a responsibility for providing students with information that is relevant to the workplace. This project combines the integration of industry standards into the curriculum with the development of a model production facility in an educational setting. Partnerships are critical to the success of workplace-related projects to ensure that the education being provided is relevant and updated.

**Impact:**

Comprehensive curricular reform, improvement of laboratory facilities, strengthening of faculty development program, enhancement of partnerships with industry and K-12, and potential for providing model/leadership for similar projects.

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## Creative Career Partnerships for Women in the Trucking Industry

**Purpose:**

To provide training in the trucking industry that allows women to access jobs offering salary and benefit packages that remove them from the welfare roles, thus improving their quality of life.

**Description:**

This fully paid scholarship training program involves six weeks of intense training in the classroom and truck, with an additional two weeks on a job site. Weekly growth group sessions meet to discuss successes, frustrations, and opportunities related to the training. In addition to job shadowing, a one-day industry workshop, and an established mentoring program, the campus wellness coordinator and the nutrition instructor provide sessions on quality lifestyle changes.

**Special Considerations:**

For funding sources it is suggested that partnerships between JTPA, local economic development boards, and the trucking industry be pursued. A truck driving training program, cooperative education job developer, institutional support, and some type of women in technology program will be the major players, all to provide support of the intended goal.

**Impact:**

Heightened industry awareness of women's professionalism; helped minimize sex bias and stereotyping in the regional trucking industry; returned women to their rural communities with marketable skills; inspired women to access nontraditional occupations; and improved communication between education and the trucking industry.

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## A Credential That Business Respects in Microcomputer Applications

**Purpose:**

To provide in-depth knowledge about how to make the microcomputer and its application software a useful and productive tool in business and industry.

**Description:**

A large percentage of individuals enrolled in courses are returning adult students. They come to college seeking a quick solution to updating their microcomputer literacy skills and soon realize that learning about technology is an ongoing process. After completing one or two courses, students continue with additional courses and soon have the necessary requirements to complete an 18-credit hour certificate.

**Special Considerations:**

Adequate microcomputer lab facilities are required. Appropriate equipment, lab support and classroom environment with overhead projection is imperative. This program also includes released time for a faculty member to coordinate microcomputer applications courses.

**Impact:**

In-depth knowledge of microcomputers, not just a few quick courses; enrollment increase in information systems department; opportunity to meet needs of returning adult students; provide necessary skills which are demanded by business community; implementation of advisory board recommendations on appropriate microcomputer literacy curriculum.

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## Enhancing the Writing Component of a Business Management Course

**Purpose:**

To integrate a practical writing assignment with a factual situation concerning comprehensive business management principles.

**Description:**

Students receive a writing assignment related to a business management case in which they must analyze appropriate issues and present them in coherently written formats through memos, outlines, and functional plans. During the early weeks of the semester, students work in the writing lab with the guidance of an English professor. There they can strengthen their communication skills while applying them to managerial principles.

**Special Considerations:**

An effort of this nature requires special cooperation between faculty members in both English and Business Studies Departments since there is no monetary compensation. Availability of a well-equipped writing lab is imperative.

**Impact:**

Since employers have repeatedly indicated their dissatisfaction with the written products of college graduates, this innovation makes students aware of the demands of the business world and the need to effectively communicate ideas, questions, and strategies in writing.

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## Focus Group Session to Evaluate an Industry-Taught Applied Biology Course

**Purpose:**

Reflective assessment of previous-semester individual industry instructor teaching, evaluation of the degree and quality of integration between instructors and community college coordinator, and course orientation of newly recruited industry instructors.

**Description:**

A summer three-hour dinner session between industry instructors and the community college coordinator of the course Biotechnology Instrumentation is conducted to evaluate data from: 1) Student ratings of course components, individual instructors, and coordinator; 2) Coordinator ratings of individual instructors; 3) Videotaped observation of student/instructor interaction; and 4) Job placement of graduates. The community college coordinator serves as moderator to finalize plans to improve the integration of instruction by this team of 14 industry instructors.

**Special Considerations:**

The community college professor serving as coordinator must have released time to collate weekly and end-of-course evaluative course data to deliver it to instructors prior to the focus-group session. It is recommended that funds be identified to compensate industry instructors for attending the focus-group session.

**Impact:**

Strengths and weaknesses of this sequentially taught course are identified and specific recommendations are made for improvement based on the individual and collective interpretation of data. The collaborative effort, team sense of purpose, and continuous quality improvement are fortified.

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## How to Build and Maintain a Maintenance Staff in Today's World

**Purpose:**

To provide future maintenance staff and to upgrade the skills of the existing maintenance staff of an area major manufacturer, an integrated training model was developed which includes task analysis of all jobs, assessment of present skills, and classroom and on-the-job basic skills training for the maintenance staff.

**Description:**

ABB Power T&D is faced with the retirement of 25 percent of its maintenance staff in the next two years. In the last three years, the staff has been reduced from 67 to 37. This is an integrated model within a major manufacturer (ABB) to provide future maintenance staff that is trained and ready when a pool of such labor is not available in the area. The model also provides training to upgrade the skills of the present maintenance staff and to provide a cross-trained multicraft maintenance staff.

**Special Considerations:**

The program was developed with input from maintenance team members within a union environment. Team members identified candidates for the trainee program from within the plant production work force and determined the schedules and policies for the basic skill training for the maintenance staff cross-training. Athens Tech served as consultant, facilitator, and training agent.

**Impact:**

The maintenance department of ABB will be able to replace retiring staff members and provide basic skills training for a multicraft staff. Further training in support of new technologies and automated manufacturing will be available. Downtime, quality, and scrap reduction are benchmarked and are being tracked.

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## The Institute for Health Professionals

**Purpose:**

To provide health professionals with quality, affordable, educational programs that meet the qualifications of health care institutions, state board, and other licensing requirements for professionals.

**Description:**

The institute offers a wide range of cooperative arrangements with professionals, associations, licensing boards, and health care facilities. It offers every facet of continuing education including curriculum design, faculty resources, marketing, and promotion expertise. It customizes these offerings to meet the needs of each professional field. This results in lowered financial risk, higher visibility, and less work for the staff of the cooperating organizations.

**Special Considerations:**

Program participants will have completed a basic training program. Almost all are licensed. Programs are offered on a flexible schedule to allow for varied working hours. Programs can be offered on site or at one of the campuses. The college must comply with accreditation boards and organizational requirements for continuing education.

**Impact:**

Impact on the health professional includes better access to education for renewal or reinstatement of a current or expired professional license, upgrading of skills to obtain a better or higher paying job, and keeping up with rapidly growing technology. Impact on the college includes an increase in enrollment/revenue and expansion of partnerships with health care organizations.

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## Interactive Nano-Vision for Science and Engineering and Education (IN-VSEE)

**Purpose:**

To use IN-VSEE to make Internet an interactive tool allowing users to remotely operate scanning probes at other microscope locations to conduct their own experiments.

**Description:**

IN-VSEE, funded by the National Science Foundation, asks: 1) Can technology level the playing field for institutions with limited resources? 2) What added value do live experiments versus canned experiences provide? IN-VSEE will provide experiments/observations of a scanning probe microscope to on-line users and observers who will interact live via Internet with experimenters. Archived images/experiments will be available through CD-ROM via Web. Evaluation of user experience, control ease, and satisfaction will be conducted on line.

**Special Considerations:**

Interested participants will need Internet access and compatible Web browser. Users need to be aware of bandwidth issues such as: compression rates, e.g., 10 seconds of viewing uses 50K data; transmission of duplicate data packets; and data collision.

**Impact:**

IN-VSEE takes Internet technology to the next inevitable level: interactive user experience. Partnerships among high school, community college, and university faculty have been strengthened and resulted in a plan to share outcomes with the Arizona Science Museum which will provide access to elementary schools and the general public.

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## Learning Strategies: Learning to Taste Success in Managerial Accounting Systems

**Purpose:**

To provide students with memorable and meaningful learning experiences in an area which suffers from high course withdrawals by students. Nationally, accounting courses lose about half their students each semester.

**Description:**

Students are immersed in a live managerial accounting demonstration when they formulate, manufacture, market, account, and evaluate the results of their team-produced chocolate chip cookies. Each team company must confront real data and information issues. Further insights come from trying to evaluate each team's performance in the context of a class consolidated business enterprise. Peer evaluations have ranged from "pink slips" to model businesses.

**Special Considerations:**

At least one student must have access to an oven or kitchen for a team baking get-together.

**Impact:**

Students' resistance to extending their learning beyond the course's business world crumbles with this live demonstration. The diversity of information and product output reinforces the importance of clear communication and how difficult it is to be in business and consistently produce quality. Student retention has improved. Long-term learning occurs.

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## A Nursing Enrichment Seminar which Improves Success of Academically Challenged Students

**Purpose:**

To empower the academically challenged nursing student to become successful through the use of a combination of a fixed and flexible format, allowing attention to areas of need as identified by a given participating group of students.

**Description:**

This is a student-centered active learning seminar focusing on application of nursing skills/activities while fostering implementation of basic study skills. Students use information about their individual leadership and learning styles to assist them in achieving goals. Peer feedback is encouraged. Each participant is asked to defend his/her position collegially. Faculty facilitate group interaction, evaluate responses, and help participants develop strengths, while focusing on their goals.

**Special Considerations:**

This program is offered between semesters. Participants may be required to attend as a condition for readmission or encouraged to attend if changing roles from LPN to ADN or as a transfer student. Self-help modules are readily available.

**Impact:**

Over 60 percent of students completing the entire seminar complete the nursing program. Approximately 10 percent decide upon other career choices. Some students will require additional help to be successful.

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## Using Future Invention Processes in Criminal Justice Program

**Purpose:**

To utilize the future invention processes, students are exposed to critical thinking skills and develop a "crazy" or "off-the-wall" idea as part of their written assignment.

**Description:**

Using the concept of future invention processes students are asked to develop an innovative program or device using "off-the-wall" or "crazy" ideas as a required written assignment. An example of one such idea submitted was the surgical insertion of a microchip into a soon-to-be-released offender for tracking purposes. Although still unconstitutional, the "crazy" idea was recently proposed in May 1996 as a parole supervision technique.

**Special Considerations:**

None needed, except that students need to be convinced that the exercise should be taken seriously.

**Impact:**

Occupational education students are rarely given the opportunity to plan or design a method, program, or device without the parameters that society imposes. The impact of this innovation is that it allows students to develop open-ended abstract ideas as part of their course requirements.

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# WORKPLACE SKILLS PROGRAMS

## America's Electronic Labor Exchange

**Purpose:**

To develop a labor exchange for the twenty-first century. The labor market is becoming increasingly more fluid and the fluidity is generated by both internal and external forces. For workers, this means a higher degree of anxiety and the need to actively manage one's career.

**Description:**

America's Job Bank (AJB) is a collection of job openings from all over the country. AJB's Internet version provides access to over 500,000 job openings each day. Most of these jobs are initially called or FAXed into one of 1,800 local Employment Service offices where they are then made accessible to AJB, usually by overnight computer transfers. America's Talent Bank is a complementary service allowing employers to self-search a database of resumes.

**Special Considerations:**

America's Job Bank is on the Internet; clients must have access to the Internet. AJB, the biggest job bank on the Net, is built on a solid nationwide foundation of 1,800 local public employment service offices that have established relationships with hundreds of thousands of employers throughout the country.

**Impact:**

America's Job Bank is already an unqualified success providing access to 500,000 job openings daily. America's Talent Bank is a complementary service allowing employers to self-search a database of resumes.

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## Computer-Based Instruction and Testing in Multiple Occupational Technologies

**Purpose:**

To provide a technology-enhanced facility in which students from multiple occupational technologies can receive multimedia, computer-based instruction, and complete competency testing for courses on an open schedule, thus enriching the learning environment and enhancing the evaluation process without impacting formal classroom or lab contact hours.

**Description:**

An Instructional Technology (IT) Lab, equipped with 30 network-linked computers and multimedia technology allows occupational students from many different disciplines to receive computer-based instruction and take computerized tests at any time during the lab's scheduled hours. This open format permits students to employ the technology-based instruction and complete evaluations on their own time outside regular class hours. It also provides for maximum utilization of equipment and technical assistants at one location.

**Special Considerations:**

Students must show valid identification and log in by password when taking examinations. Students can repeat instructional programs as often as necessary for mastery. Many students tend to work in small groups, especially when using simulation programs. An ideal lab needs sound-insulated work stations so students using separate programs do not interfere with one another.

**Impact:**

During the year ended June 30, 1996, the IT Lab offered 79 different instructional programs for 24 separate classes. The lab administered some 94 different tests to students in these classes. More than 2,000 students were logged in 8,728 individual instruction and testing sessions during the year.

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## Developing an Outcomes Assessment Curriculum for Professional-Technical Programs

**Purpose:**

To ensure each student masters the identified competencies and skills in each required course of the professional-technical curriculum at a community college.

**Description:**

Business and industry are requiring higher levels of comprehensive quantitative and qualitative competencies and skills from their employees. Each student will complete course work in which specific competencies and skills are identified through a Technical Competency Profile (TCP) to be developed with input from business and industry practitioners, secondary teachers, and community college and university faculty. Learners will be assessed in the basic skills of reading, writing, computation, and computer literacy upon enrollment at the community college.

**Special Considerations:**

The percentage of underprepared students enrolling in community colleges today is increasing. In order for students to succeed in professional-technical programs, they must enroll in developmental education until adequately prepared to enroll in core courses.

**Impact:**

Students completing a professional-technical program will have obtained the competencies and skills identified by business and industry. Community colleges will have a comprehensive, updated professional-technical program which includes student tracking. Business and industry will have a better trained and skilled work force.

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## Employees as Educational Advisors

**Purpose:**

To provide greater employee input into company training needs, encourage employee participation in lifelong learning, and to channel educational information between employees and departments.

**Description:**

A representative from each department, crew, and shift acts as the educational liaison between the college's Learning Center and the workforce sites. Each representative is responsible for updating a manual that contains course descriptions, schedules, software, and library listings. Educational advisors poll their departments for training needs, answer training-related questions, and direct employees to educational resources.

**Special Considerations:**

Educational advisors must be employees who are proactive and respected by their coworkers. They need to be supporters of lifelong learning who can confront "nay-sayers". They need to be given the opportunity to participate in training programs prior to their coworkers so they have first-hand knowledge of the training.

**Impact:**

Improved communication concerning training needs; greater employee buy-in for lifelong learning; training can be provided on an "as-needed," "just-in-time" basis; and enhanced coordination of training among departments.

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## First Step: A Work Experience and Upgrading Program for Adults with Disabilities

**Purpose:**

To provide academic upgrading and life-skill training with emphasis on workplace transition for adults with disabilities.

**Description:**

This forty-week program combines academic upgrading, life skills, work skills, and work experience for adults with disabilities who are currently excluded from the job market. Most have had little opportunity to develop work skills and struggle with literacy and numeracy issues. The standard subjects of science, mathematics, and communications are supplemented with practical seminars that include career exploration, small business management, technical training that includes computer literacy, accounting, and work placements of approximately two days per week.

**Special Considerations:**

Available only to adults with disabilities who are sponsored through one of the participating partners.

**Impact:**

For the two years this program has been operating, almost 90 percent of the participants have obtained employment or continued on for further academic qualifications. This represents a significant improvement over similar programs.

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## Gateway to Technologies

**Purpose:**

To build successful transition from work to training/education and back to work for unemployed workers who feel or seem unlikely to succeed comfortably in today's academic and vocational training environments. "The Gateway" provides both a "brush up" and "launching" to further training.

**Description:**

At intake, the college readiness of each unemployed worker is assessed. Those who would benefit from the Gateway program enroll in five courses for 18 credits which form a concentrated and integrated learning community. The courses are: Computer Science 101, Exploring Vocational Technical Options, Applied Communications, Applied Mathematics, and Learning Skills.

**Special Considerations:**

Faculty must be carefully selected to ensure that all learning and teaching styles are accommodated. Nearby community colleges and technical institutes are included as part of the exploration course so the students are exposed to all viable options for employment training. Business, industry, and social service agencies are also included as partners in planning and governance of the program to ensure funding, work-based learning opportunities, and job placement.

**Impact:**

Participants report that they are significantly better prepared for college and returning to work. Exposure to current and future employability, preparation, and wage information is valuable. Most of all, the relationships with, and encouragement of, faculty seem to build confidence and skills for workers who have been away from school for decades and may lack confidence in their future.

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## One-Stop Job Shopping for Dislocated Workers

**Purpose:**

To transition dislocated workers into new careers with a "One-Stop" experience. Career Services and Employment Security have joined forces to provide unemployed workers with a seamless network of support for retraining and placement.

**Description:**

This highly successful program is providing dislocated workers with easy access to retraining and reemployment with the "One-Stop" concept. Dislocated workers access career counseling, vocational advising, financial aid, priority registration, internships, placement, and trouble shooting at one centralized location. Employment Security provides answers to questions regarding unemployment compensation and assists students with the job search.

**Special Considerations:**

Space is an issue. Employment Security became part of the Career Employment Services Office at the college. In order to create a centralized program, the program director had to negotiate with Admissions and Registration for space.

**Impact:**

This high-need population moved from unemployment to reemployment. Eighty-eight percent to 95 percent of the students found jobs in high-demand occupations with an average salary of $13 an hour. Students learned to self manage their career lives and to become lifelong learners.

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## Preparing Welfare Recipients and Dislocated Workers for Today's Workplace

**Purpose:**

To provide entry-level workers in manufacturing and customer service businesses with sufficient job skills in the areas of math, communication, computers, team work, and work habits.

**Description:**

The program consists of one semester of credit course work in math, writing, computers, and job search; noncredit workshops in communication, team building, and precision measurement; working with difficult customers; and supportive counseling and tutoring. Understanding of the workplace ethic is emphasized. Classes and activities are based on courses and workshops that the college currently offers. Activities take place at one of the city-based extension centers. Graduates are encouraged to continue in school on a part-time basis.

**Special Considerations:**

The biggest challenge of the program is convincing those who can benefit from the program that they must commit to such skill development. Recruitment of students includes meetings with local human service agencies, distributing flyers to prospective employers to give to underqualified applicants, and media coverage. The only increased costs to the college are for tutoring and support services. These are paid from a VATEA grant or per-student fees charged to sponsoring agencies or employers.

**Impact:**

All students who successfully completed the semester have found suitable employment. The college has increased enrollment.

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## Step-Up-and-Go Program

**Purpose:**

To provide a viable model for short-term basic skills instruction and on-the-job training in current and emerging fields of high employment.

**Description:**

This program provides short-term basic skills instruction and on-the-job training in current and emerging fields of high employment for 42 formerly undereducated, untrained, and unemployed residents of the Housing Authority of Joliet, Illinois. The goal of the program is to assist residents to obtain employment and achieve economic self-sufficiency through education, training, and job placement in their selected fields.

**Special Considerations:**

This program requires the full collaboration and cooperation of the Housing Authority of Joliet (HAJ) and its staff and the contractor's union. Instruction and support staff of Joliet Junior College were essential as were ample facilities such as computer labs, classrooms, and resources.

**Impact:**

Work-related education combined with on-the-job training leads to full-time employment in the construction trades. As a result of full-time employment opportunities, HAJ residents move from economic dependency to self-sufficiency.

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## The Technical Opportunities Program (TOP) for Women Pursuing Nontraditional Careers

**Purpose:**

To expose women to specific career paths that require technical skills, to encourage women to pursue employment through intensive experiential-based learning in six technical fields, and to provide the foundation necessary to gain access to education and training that leads to entry-level technical employment.

**Description:**

The TOP is an experiential-based program integrated into existing college programming. It is designed to facilitate the exposure women receive to technical career opportunities. The program consists of 140 hours of instruction presented over a twelve-week time block. A training partnership consortium consisting of two major corporations and other local colleges and high schools is utilized to enhance and support training and employment opportunities.

**Special Considerations:**

Assimilation into the college curriculum to complement existing programs is the major challenge facing implementation.

**Impact:**

The TOP will increase the number of women employed in nontraditional careers and serve as a transportable model for other community colleges looking to establish a similar program.

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## Technology-Enhanced Learning Environment (TELE) Rooms

**Purpose:**

To provide a technology-enhanced, instructor-controlled learning facility which incorporates all major media presentation systems in an integrated format for maximum utilization of technology in classroom teaching and as the originator of distance learning courses broadcast over microwave or optic cable links or taught on-line across the Internet.

**Description:**

The TELE Rooms are located at each of Salt Lake Community College's main campuses. They are equipped with 24 computers (Power Macintosh with DOS operating cards) which are Novell networked and connected to the World Wide Web; video cameras for imaging the instructor, students, and overhead tabletop materials; two-way interactive distance delivery and receiving hardware including CD-ROM, VCR, computer imaging, and multiple video cameras; FAX machine; telephone; and networked laser printer. All hardware is multisinced to large screen monitors for display within the classroom or broadcast in distance learning formats.

**Special Considerations:**

Instructors must learn to use the TELE control system and practice implementing the various technologies available with their classroom presentations. Significant training time is necessary to become proficient in the use of the systems. Students in telecourses, especially those taught in a two-way interactive format, must practice appropriate classroom etiquette in order for all participants to have equal access to the presenting material.

**Impact:**

The TELE Rooms were placed in service in the fall of 1995. Since then they have been continuously booked for a variety of distance- and classroom-taught courses in which the instructors have made extensive use of the available technologies. Many faculty members have enhanced their teaching with new presentations, computer simulations, and technology-based learning exercises developed specifically for use in the TELE Rooms.

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## Training Faculty Leaders to Integrate Curriculum across Disciplines

**Purpose:**

To assist community college faculty to develop rigorous and relevant curriculum integrated across disciplines. Meeting academic and workplace needs for the technology and information age requires that community colleges incorporate a variety of innovative instructional and assessment methodologies that will integrate secondary, postsecondary, and workplace learning.

**Description:**

This multidimensional training program is designed to support the educational change process by training faculty leaders to develop innovative teaching methodologies resulting in rigorous and relevant curriculum for the technology and information age. Faculty are trained to develop integrated instructional resource modules which can be applied across disciplines. Faculty gain skills incorporating new knowledge in: (1) SCANS skills development; (2) Multiple intelligences; (3) Collaborative learning structures supporting applied academics; (4) Assessment design; (5) Faculty and student team building communications skills; (6) Faculty and student learning communities; and (7) Facilitating change processes.

**Special Considerations:**

Developing this training program has required a major investment of funding, equipment, time, staff support, and facilities. The CareerLink Training Center provides an innovative, contemporary, cost-effective resource for training faculty from secondary and postsecondary institutions.

**Impact:**

The program assists faculty in developing relevant and rigorous curriculum based on SCANS skills competencies which prepares students for lifelong learning in the technological and information age; assists faculty and educational organizations to update instructional methodology and curriculum to adapt to rapid workplace developments; and provides a well-designed, comprehensive training program which addresses both developing skills and overcoming barriers to change.

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## Transitional/Partnership Program for the Underemployed

**Purpose:**

To make use of vacant facilities on a college campus to attract other educational districts and small businesses into partnership programs designed for the underemployed student: programs emphasize retraining, life skills planning, and assessment.

**Description:**

The facility is used by Porterville College in association with area school districts as a vocational training site for hard-to-employ college students. The partnership stipulates that the retraining assignments of participating students will serve as additional work force to meet specific needs of the college's maintenance and operations department. This program provides a buffer for students with low skills and poor self-esteem, allowing them to identify with a desirable product created through the partnership. The products and services generated through this educational program benefit the business community which attracts large and small companies to the program and thus focuses attention on the retrained students.

**Special Considerations:**

Semesters allowed for participation are limited. Transitional program is in place with a large nonprofit industry. Expansion is focused on one large corporation or several small businesses which make up a large local industry. New partnerships using other vacant facilities are now being formed.

**Impact:**

As a result of the project: (1) College-business community relations and communications have improved; (2) An innovative approach to a much-needed program and the resurrection of a useful facility without any increase to the budget has motivated faculty; (3) Products created are distributed free all over campus; and (4) Students enrolled have high success rate.

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## Unleashing the Power of the Classroom: Multiple-Level Learning Strategies

**Purpose:**

To create new behaviors and marketable skills through the application of multiple-level learning strategies.

**Description:**

Mature students pursuing a college degree are typically working professionals seeking to become degreed for advancement or for new career opportunities. Additionally, within the context of advancement or new opportunities, they are also seeking to develop marketable skills. The multiple-level learning approach *(i.e., knowledge acquisition, skill development, behavior change, or reinforcement)* uses creative instructional strategies that teach content while concurrently developing *targeted* skills and behaviors. More important, however, this does not occur just in certain activities, but in the *overall design* of the entire course or series of courses. For example, strategies like the "observer role" and "biographical portrait" are used to develop facilitation and interviewing skills while serving as a framework for a variety of content areas.

**Special Considerations:**

The instructional strategies used for multiple-level learning should not overshadow the content of the course. Therefore, the design of activities should focus on the development of two or three skills/behaviors at the most. Also, students should be primed or prepared for learning within this context (i.e., learning from *"what they do"* as well as *"how they do it")*. Additionally, it helps to focus on a cluster of skills or behaviors that are related to practicing in the field the students are studying.

**Impact:**

This innovation helps students move faster up the learning curve for targeted skills and behaviors. Students develop practical skills as well as learn content. They also develop a repertoire of techniques, tools, and methods that can be shared and applied on the job. This gives more meaning to the classroom experience. Feedback from students indicates that they see real applicability in the skill-building aspect of the course. They learn information while modeling behaviors and building skills through things like the "business units" and the "knowledge challenge" activities.

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## The Virtual Workplace: Curriculum Reform Driven by National Voluntary Industry Skill Standards

**Purpose:**
To align education with industry needs by using results from national voluntary industry skill standards projects to design performance-based curricula.

**Description:**
Efforts by two-year college faculty to incorporate voluntary national skills standards into curricula have evolved into the idea of the Virtual Workplace (VW) as a medium for teaching and learning. The infusion of skill standards has had a far greater effect on the teaching/learning process than just assuring that the subject matter is current and up-to-date as it relates to industry need. In the VW, industry methods and assessment techniques replace traditional educational practice.

**Special Considerations:**
The ability to replicate this educational environment in other colleges will depend upon the instructor's willingness to change. Successful faculty become more involved with industry. The VW approach requires more from and returns more to students, faculty, and industry.

**Impact:**
The Virtual Workplace (VW) impacted content, methods, and assessment, creating a shift from instructor- to student-centered activities and from time-based teaching to competency-based learning. Isolated work was replaced by collaborative work and teacher-driven assessment by peer, self, and management assessment against industry skill standards.

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## Workforce Analysis: Learning Industry Trends via Student-Conducted Market Research

**Purpose:**
To provide students with a formal opportunity to gain insight into job markets in which they will soon be contributors by designing their own market research projects and tailoring them to industries of specific interest.

**Description:**
Student-conducted workforce analyses yield first-hand job market information and current industry trends. Unlike information generated by other sources, this student-designed project provides direct industry feedback from tailored questionnaires aimed at specific areas of employment. Such research results benefit students in selecting career paths and in setting career goals.

**Special Considerations:**
Students must have predetermined career interests and expectations so that questionnaire design will solicit appropriate response; students must accept the expense of surveying and understand the time involvement of such projects; students must remain aware that questionnaire response is not guaranteed.

**Impact:**
Students develop more realistic career and salary expectations; students learn the latest job trends in selected industries; research into dynamic industries may promote specialized career paths within the same industry; current research serves as reliable data from which students in subsequent semesters can establish employment trends.

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