# ED425786 1999-01-00 Integration of Academic and Occupational Education in Community/Technical Colleges. ERIC Digest.

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INTRODUCTION

Community and technical colleges are facing increased external pressure to design
curriculum and instruction in ways that show students how to apply concepts learned in
both their occupational and academic courses. Teahen (1996) contends that "vocational
educators are criticized for providing overly specific training, and academic educators
are criticized for providing instruction that is neither participatory nor connected to the
real-world's requirements" (p. 3). One solution to this dilemma is the integration of
academic and occupational education. This Digest cites a rationale for integrating
academic and occupational education, describes models for integration, outlines
barriers to integration, and suggests ways in which community and technical college
leaders can advance integration efforts.

# RATIONALE FOR INTEGRATION

Integration of academic and occupational education reinforces the shifting paradigm
from teaching to learning and requires that students become active participants in the
construction of their own knowledge. Badway and Grubb (1997) suggest that integrating
academic and occupational education broadens occupational education and
strengthens its connection to civic goals. Academic and occupational integration has the
potential to offer a broader focus for occupational education and to offer opportunities
for a more diverse group of students (Illinois Task Force, 1997, p. 4). Copa and
Ammentorp (1997) suggest that design of the learning process - i.e., curriculum,
instruction, and assessment - must become more integrated and better suited to the
specifications for learning outcomes. They suggest that the learning process "engage
the learner in inquiry (research) and knowledge construction and that learning projects
[are] connected to the needs of the community" (p. 10).
The Commission on the Future of the Community College (1988) recommends that
community/technical colleges "integrate general education within the specialized studies
program--through interdisciplinary courses, special seminars, and the like" and that the
community college "should overcome departmental narrowness by integrating technical
and career studies with the liberal arts" (p. 18).

Edmonds (1993) states that there appears to be general consensus that students in
occupational programs need more than concrete skills to perform well in the work force.
She challenges faculty and administrators to "integrate occupational programs and
general education so that students see the connectedness of their learning, practice
problem solving, work cooperatively with others, and construct and evaluate

alternatives" (p. 85).

Integration can also help to move vocational education from traditional narrow skills-training to education that prepares students to work in increasingly high-skilled, technical work places. Jacobs (1993), calling for American higher education to serve the changing interests and needs of U.S. businesses, cites a "compelling need to move vocational education away from the overemphasis on hands-on skills in order to develop programs that meet the needs of employers" (p. 81).

# MODELS FOR COMMUNITY/TECHNICAL COLLEGE INTEGRATION

A variety of curriculum integration models can be used in community/technical colleges. Grubb and Kraskouskas (1992) identify and describe eight approaches to integration: general education requirements, applied academics courses, cross-curricular incorporation of academic skills in occupational programs, incorporating academic modules in expanded occupational courses, multidisciplinary courses combining academic perspectives and occupational concerns, tandem and cluster courses and learning communities, colleges-within-colleges, and remediation and English-as-a-second language programs with an occupational focus.
A variety of integration efforts have been implemented recently. Nicolet Technical College identifies and assesses college-wide "institutional outcomes" or "core abilities" in all college programs and courses (Bass, 1996, p. 4). Every student in a program of substantial length is taught and assessed for these outcomes before leaving the institution.

Delta College developed the Delta Bio-Ethics-Nursing 100 project as a learning community where students participated in three courses--Introduction to Health Care, Health Care Ethics, and College Composition I. Core abilities and general education competencies were integrated and infused across all three courses, common themes for linking and learning activities were shared in all three courses, and faculty team-taught the courses (Jacobs & Teahen, 1996).

Albuquerque Technical-Vocational Institute brought together eighty faculty from five departments to form integration teams. The goal of the project was to enhance communication among departmental faculties, employers, and advisory boards; to enhance both the general education and career education courses; to produce materials that connected theory to practice; and to improve vocational students' attitudes about required courses by presenting career applications of educational content (McBroom, 1996).

Seminole Community College created a course called "Technology and the Humanities for the 21st Century" which it requires or strongly recommends for associate degree

programs. The course examines how technology interacts with culture in the modern world as well as technology's connection to the past (Prager, 1994).

Kirkwood Community College secured a National Endowment for the Humanities grant for interdivisional faculty from career programs and liberal arts to create three interdisciplinary humanities courses on topics of special interest to career students: Working in America, Technology and the Human Condition, and Living in the Information Age (Prager, 1994).

# BARRIERS TO INTEGRATION

Barriers to integration are many and varied and pose challenges to colleges wishing to move ahead with integration initiatives. Examples of barriers include (Teahen, 1996, p. 16): universities' lack of acceptance of transfer credit for "new" courses, reluctance of faculty to change, pervasive disciplinary specialization, lack of leadership in support of curriculum reform, lack of support from administrators, lack of knowledge of how to integrate, perceptions of status differences between academic and occupational faculty, and lack of resources for release time, planning, and professional development.
Each of these barriers presents special challenges and requires college-wide commitment to engage in substantive efforts to integrate academic and occupational education.

# ROLE OF ADMINISTRATION

The literature documents administrators' key role in effecting the integration of academic and occupational education. According to Schmidt, Finch, & Faulkner (1992), "Administrative practices and procedures were viewed as contributing to cooperative efforts, curriculum strategies, and instructional strategies by fostering a positive climate for integration. Numerous instances of administrative activities could be linked to integration" (p. 57). Schmidt et al identified eight subthemes which emerged as effective administrative practices fostering integration efforts: facilitating the integration process, dealing with administrative constraints, handling teacher concerns, learning from experience, scheduling/organizing classes, dealing with teacher resentment, involving teachers, and seeking administrative support.
The Illinois Task Force on Academic/Occupational Integration (1997) concludes, "Advancing academic and occupational education within the community college requires the commitment of leadership to nurturing an environment that supports innovation and to providing resources that support planning, development, and implementation" (p. 17).

# CONCLUSION

The integration of technical and academic curriculum will allow students to become more active participants in their learning. Furthermore, graduates will gain concrete

skills, such as literacy, needed in today's work environments. Numerous models exist for the successful integration of occupational and academic curriculum despite the internal and external barriers which exist. The support and leadership of administrators is a critical factor in successful integration efforts.

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